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PLANT EXPLORATION IN SOUTH AFRICA
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Plant materials from private sources, botanic gardens, experiment stations and universities were acquired on an exchange basis. At commercial nurseries materials were purchased.

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CONTENTS

INTRODUCTION	1
Objective	1
Climate & Topography	2
Farming regions	2
Vegetation types	3
Field crops	4
Forage crops	7
DIGITARIA COLLECTION	11
TRANSVAAL	14
Rietondale Research Station	15
Horticultural Research Institute	16
Towoomba Agricultural Station	17
Subtropical Horticultural Research Station	19
Lowveld Agricultural Research Station	19
Kruger National Park	20
Potchefstroom Agricultural College	20
NATAL	21
Estcourt Research Farm	21
University of Natal	22
Hluhluwe Game Reserve	23
Umfolozi Game Reserve	24
ORANGE FREE STATE	25
Bethlehem Research Station	25
Glen Agricultural College	26

CAPE PROVINCE	28
Grootfontein Agricultural College	28
Pineapple Research Station	30
Bathurst Agricultural Station	31
Outiniqua Agricultural Station	32
Stellenbosch University	32
Kirstenbosch Botanic Gardens	33
DESCRIPTION AND DISTRIBUTION OF SPECIES	33
ENUMERATION OF INTRODUCTIONS	49
NUMERICAL LIST OF INTRODUCTIONS	129
TABLE AND FIGURES	149

INTRODUCTION

The necessity of broadening the genetic base of Digitaria germ plasm has been the consensus among researchers in grassland agriculture in the western hemisphere for many years. This need has arisen from (1) the paucity of introduced germ plasm into the U.S. during the past half century and (2) the restricted genetic diversity present in that material which was introduced. This need has long been recognized. The Caribbean Organization and FAO have established working parties oriented specifically toward this objective. It gained impetus in 1960 through the reported incidence of a virus disease on Digitaria decumbens Stent pangolagrass from Surinam. This disease has now become widespread in certain areas of the Caribbean through the exchange of diseased propagating stocks. Extensive plantings of pangolagrass in northern Brazil, British Guiana, Surinam and Venezuela have suffered widespread damage from its devastating effects. The disease is now suspected of being present in Trinidad and Tobago. USDA Plant Quarantine Division upon being apprised of this situation issued instructions prohibiting the importation of propagating material from the Caribbean region and northern South America.

The universality associated with and economic importance attached to the need for exotic germ plasm of Digitaria culminated in a coordinated effort aimed at the introduction through direct exploration for additional germ plasm. This need was formalized in the form of a request made to New Crops Research Branch by the Southern Regional Technical Committee in 1962. This request was concurred in by the National Coordinating Committee (New Crops Program) in 1963 and outside moral support was forthcoming from the Caribbean Organization.

The objective of this mission was to broaden the genetic base of Digitaria germ plasm in the U.S. aimed specifically toward the search for cold tolerance and disease resistance. Other warm-season grasses and legumes are included in the collection which is given in the "ENUMERATION OF INTRODUCTIONS." A "NUMERICAL LIST OF INTRODUCTIONS" is also included.

Agriculture has been the backbone of the national economy of South Africa for over two centuries. South Africa can truly be referred to as a nation of farmers or more appropriately perhaps a farming nation. It is an unquestioned fact that farming has exercised a profound influence on the economy, history and upon the formation of the national character in the development of the nation.

The similarities in the development of South Africa as a nation to that of our country are surprisingly striking in many respects.

In South Africa, as in America, it was the agriculturist and stock-farmer who tamed the wilderness and carried civilization into the interior. Similarly, the two nations were colonized in their infancy by mass migrations, chiefly from European countries. The early settlers in South Africa consisted chiefly of peoples from Great Britain and Holland with substantial contributions also from Belgium, France, Germany and the Scandinavian countries. Peoples from Britain and Holland constituted the main national elements upon which the South African nation has been built with its two official languages, English and Afrikaans.

The Republic of South Africa is large; it comprises a total area of some 473,000 square miles. About 86 percent of the country has summer rainfall and is subject to a regular six months' drought. A small area in the extreme southern Cape Province has a year-round rainfall whereas 50,000 square miles in the southwestern Cape has a winter rainfall with an accompanying summer drought.

About 80 percent of the total area is available for farming. Barely ten percent of the available farm land is under cultivation largely due to aridity, mountainous terrain and the amount of stones on the land. Only about a third of the tillable land receives more than 24 inches of rainfall per annum, this being the minimum requirement for successful crop production in summer rainfall areas.

A knowledge of the role played by the interaction of climate, soils and topography as they influence the natural vegetation and cropping systems is helpful to the plant explorer. The combination of topography and climate produce an environment conducive to extensive pastoral farming where farms are usually of relatively large size. Extensive cattle and sheep farming based almost entirely on natural pastures is common throughout the country, especially in areas of lower rainfall. An increasing amount of tillable land is being placed under irrigation where economically feasible. Vast irrigation schemes are now in operation on the lower portions of the Orange River basin in the Cape Province. Others are located on the Vaal River which serves as a natural boundary between Orange Free State and Transvaal and on the Pongola River in Natal. Many of the eastward-flowing rivers which empty into the Indian Ocean are unsuitable for irrigation due to their small size.

The mixed farming regions are found in the summer rainfall areas and include the higher elevations in the Orange Free State and Transvaal to which should be added the midlands of Natal and the winter rainfall area of the southwestern Cape. Vast areas of arid and semiarid land called "Karoo" lie between the mixed farming regions. It is in the Karroo and marginal Karroo that extensive sheep farming predominates.

The far northern and northwestern areas of Transvaal and Cape Province are essentially extensive cattle farming regions. In addition, timber constitutes a crop of significant economic importance in this area.

The eastern Transvaal which is comparatively low in elevation is an important region for the production of citrus, cotton, and subtropical fruits and vegetables. The frost-free coastal belt of Natal and the eastern Cape is also adapted to a variety of subtropical crops. This area is of particular importance for the production of sugar, citrus, bananas and pineapples, as well as timber in some parts.

Despite the limitations imposed by soil conditions, climate and topography, farming in South Africa is best characterized by its remarkable variety. It encompasses many types of livestock farming and virtually all vegetable, fruit and field crops adapted to subtropical and temperate climates. Because of the limitations imposed by climate, soils and topography which render 85 percent of the country unsuitable for cultivation natural grassland has been the mainstay of the livestock industry throughout the country and undoubtedly will remain so within the foreseeable future.

A wide variety of grazing lands occur which bear favorable comparison with those of other countries with similar climates. Four major vegetation types are recognized from a pastoral viewpoint: (1) The semidesert grasslands of the northwestern Cape Province, receiving less than 6 inches of rainfall annually. Supplementary fodder production is neither possible nor necessary in this area whose grasses constitute the "Bushmangrass" group which thrive on scanty rainfall. These grasses remain highly palatable in a dry state for extended periods of time. (2) The vast semiarid Karroo regions of the central and western Cape Province where the mean annual rainfall ranges from 6-10 inches. (3) The extensive semiarid regions found in parts of the central and northern Cape Province, southwestern Orange Free State and northern Transvaal. The mean annual rainfall ranges from 10-16 inches and dryland farming is practiced on a limited scale. (4) The regions of higher rainfall and relative humidity characterized by the mixed grasslands common in the higher elevations of Orange Free State, Transvaal, portions of the southern and eastern Cape Province and a wide belt east of the Drakensburg Escarpment. This area also encompasses the lowlands of eastern Cape Province, Natal and Transvaal. It is in this area that the production of supplemental forage crops is practiced and encouraged.

Cultivated pastures should be included in any discussion of natural grasslands. Although natural grasses constitute the major forages utilized as pasturage throughout the country cultivated pastures are becoming increasingly important and common. Cultivated pastures, utilized for grazing and forage production, serve as a valuable

supplement to natural pastures and constitute the principal means whereby intensification of land utilization is being achieved. The use of cultivated pastures unfortunately has not met with the same general acceptance among South African farmers as has the practice of rotation grazing.

There are two distinct categories of farming practiced; that carried out by white European farmers on private farms and that carried out by colored "Bantu" farmers on government land in "Bantu Areas." Bantu Areas are large parcels of land set aside by the government for exclusive use by the Bantu; i.e., indigenous non-white Africans. The existing Bantu Areas are located mostly in the eastern and northern parts of the country where the agricultural potential is high. Farming as practiced by white Africans is highly developed whereas that practiced by the Bantu is far less advanced. Subsistence farming, done by the farmer and his family, best describes that carried out in Bantu Areas. In many instances the menfolk are gainfully employed away from the reservation and what farming is practiced is done by the women and children.

The distribution of major and minor field crops grown throughout South Africa is determined more by climate than by soil type. In the summer rainfall areas, which exclude only the southwestern Cape Province, practically all crops are grown under a mean annual rainfall of 20-30 inches. The principal field crops grown on the great inland plateau called the "Highveld" which includes large areas of eastern Cape Province and Natal include: corn, grain, sorghum, legumes, potatoes both common and sweet, and the oilcrops, peanut and sunflower.

The observations which follow are made on the field crops of primary and secondary economic importance throughout the entire country. The relationship of particular crops to climatic zones and production areas is of interest in connection with plant exploration.

Field crops, listed in alphabetic order, recommended for planting in South Africa include: alfalfa, artichokes, barley, field beans, birdseed (Phalaris canariensis L. locally called "Canarygrass"), broomcorn, buckwheat, cactus (spineless types), castorbeans, chicory, clovers, corn, cotton, cowpeas, flax, Hibiscus species, kafircorn (Sorghum bicolor (L.) Moench.), kaffir-watermelon (Citrullus lanatus (Thunb.) Mansf.), kale, kohlrabi, kudzu, lupines, mangelwurzels, millets, oats, peanuts, popcorn, potatoes (common and sweet), pumpkin, "Japanese" radish (Raphanus sativus L.), rape, rice, rye, safflower, saltbush (Atriplex nummularia Lindl.), serradella, sisal, soybeans, sugarcane, sunflower, sunhemp (Crotalaria juncea L.), sweetcorn, sorghum, tobacco, turnip, velvetbean, vetch and wheat (winter and summer). The grasses which are recommended for inclusion as field crops will appear later in this report.

These field crops may be divided arbitrarily into utilization groups for ease and clarity of discussion.

Cereals

These would include barley, oats, rice, rye and wheat; the latter being the most important cereal crop grown. Both summer and winter wheats are utilized and the crop is produced in all of the provinces. Although the majority of the acreage is grown under dryland conditions there is considerable acreage under irrigation. Alfalfa and lupines are used as rotation crops in wheat producing areas.

Although barley is not of major economic importance nevertheless it has considerable significance in certain areas. It is grown as a grazing and soilage crop in the eastern Cape Province whereas in the southwestern Cape it is an important grain crop.

Oats, next to wheat, is the most important winter cereal. The crop is utilized as food for human consumption and as animal feed. The crop is grown as a winter annual.

Rye has never become an important cereal crop although it has been grown for many years. The Transvaal produces a small quantity for grain whereas it is grown for grazing purposes in the Cape Province and in the Orange Free State.

Rice production in the Republic does not meet the local demand. Its production is largely restricted to the frost-free coastal areas of Natal and in the eastern Transvaal.

Fiber Crops

The fiber crops which have been tried and are in production include: cotton, flax (for fiber), kenaf, New Zealand hemp (Phormium tenax Forst.) and sisal.

Domestic cotton production does not meet the local demand for this important fiber crop. Its production is recommended for the "Lowveld" of the eastern Transvaal and certain areas where irrigation water is available. Commercial production was observed in the Barberton - Nelspruit area of the eastern Transvaal. Other production areas include Vaalhartz, O.F.S. and irrigated sites along the Orange River. There has been a recent rejuvenation of interest in this crop and the research associated with cotton is centered at the "Lowveld Agricultural Research Station" at Barberton, Transvaal. A visit to this station revealed that only American-upland; i.e., short-staple varieties are grown with no emphasis being placed on the Egyptian long-staple varieties.

New Zealand hemp, Phormium tenax Forst., is adapted to the heavy rainfall areas in the eastern Transvaal. It is also recommended and grown in the coastal areas of Natal and Zululand south to a point near George, C.P.

Sisal, Agave sisalana Perrine ex Engelm., is adapted to the same growing conditions as New Zealand hemp. Commercial production was observed in the Barberton - Nelspruit area of Transvaal and extensive plantings were seen in the coastal regions of Zululand.

Oil Crops

Flax, Linum usitatissimum L., castorbean, safflower and sunflower constitute the major oilseed crops. Of those observed growing on field-scale sunflower was most widely distributed. This crop was observed growing at widely separated sites in O.F.S., Cape Province, Natal, Transvaal and Zululand. Black-seeded types which were collected in the Orange Free State and Zululand were observed growing at other widely separated locations. Sunflower production is concentrated in the Transvaal with large acreages occurring in the southcentral and southwestern portions. Both giant and dwarf types are grown in addition to a limited number of hybrids. Castorbean and safflower are of lesser importance than sunflower. Wild castorbeans were observed in all Provinces growing under highly variable conditions of soil type and rainfall. Most of them exhibited tendencies toward perenniality and all shattered their seeds upon maturity.

Sugar Crops

The sugar industry in Natal is slightly over one hundred years old. At the present time production, derived entirely from sugarcane, exceeds the domestic demand. The crop in Natal, Zululand and extreme southeastern Transvaal is produced under both dryland and irrigation conditions. This industry which operates through the "Sugar Association" acts almost entirely independently of any outside advice and assistance. Judging from the appearance of their production, processing and marketing equipment and especially their cane yields I would agree that it is a thriving and prosperous enterprise. Inquiries were not made regarding the availability of planting stocks however in my considered opinion this point may be persued to advantage by contacting the Association; the headquarters is located in Durban, Natal.

Root Crops

Potatoes, both Irish or ordinary Solanum tuberosum L. and Ipomoea batatas (L.) Lam., constitute a significant portion of the diet in South Africa. Generally speaking sweet potatoes are produced along the eastern coastal areas of the country whereas the production areas of the common potato are more widely dispersed.

Certain other root crops are grown in certain areas for livestock feed. Chief among these are Jerusalem artichoke, mangel, Beta vulgaris L., turnip, and Japanese radish, Raphanus sativus L. Mangel and Japanese radish are most important from the standpoint of production and utilization. Considerable acreage of the latter crop was observed in the higher elevations of Orange Free State and in the eastern Cape Province.

Legumes

Alfalfa is by far the most important forage legume in the country. Its production is widespread and it is grown under both dryland and irrigation conditions. Seed stocks of this major crop were originally introduced into the country and as far as could be ascertained only one standard variety is currently being grown. Other varieties which have only been recently introduced are still undergoing evaluation and have not been released to farmers. Governmental regulations regarding the importation of this crop are very strict which may explain in large part the paucity of varieties available.

Peanuts are an important field crop in each of the Provinces. The crop was observed growing in widely separated sites from northern Transvaal to Caledon in the eastern Cape Province. The "Virginia Runner" type was not found; instead the small Spanish peanuts were grown extensively. Although some of the plant types observed approached the "Virginia Runner" the fruiting characteristics and fruits were unmistakably those of the Spanish peanut. The variety most extensively grown is "Natal Common" although "Virginia Bunch" and "Egyptian Giant" and other white-kernelled varieties have been tried. All plant breeding investigations with this crop are located at Potchefstroom College of Agriculture in the Transvaal.

Some clovers, other than those observed in experimental plantings, were seen in grass-legume combinations occurring in both natural and planted stands. Mixed stands of grasses and clovers, primarily "New Zealand White," grown under irrigation as a meadow were observed in the Orange Free State. The white clover "New Zealand White" enjoys the best reputation among farmers and is most widely grown. No pure stands of clover were observed. The impression was gained that although the agriculturists and farmers alike recognize and agree upon the role which clovers should play in their grassland agriculture nevertheless there appeared to be no concentrated effort directed toward that end. Seeds of four clover species were collected, three of which came from the wild. All plant breeding connected with this crop is located at Grootfontein Agricultural College, Middelburg, C.P. Several promising breeding lines of red and white clover, scheduled for early release, were observed at and obtained from this college.

Dry beans, consisting of numerous varieties of Phaseolus coccineus L. and P. vulgaris L., are a common sight in the open markets of every city and village. The importance of the crop in commerce may be best described by stating that beans are subject to the Marketing Act and as such are handled by registered agents of the Bean Control Board.

Cowpea, Vigna sinensis (Torner) Savi, velvetbean Stizolobium deeringianum Bort., and sunhemp, Crotalaria juncea L. are all summer annuals. These crops are used throughout the Republic primarily as summer cover and/or green manure crops, with emphasis on the latter. In addition, they form an integral part of the major crop rotation systems being followed. Of these, sunhemp, enjoys the most popularity judged by the widespread plantings.

Kudzu, soybeans, and vetch are other legumes of minor importance.

Lupines have a prominent place as an agricultural crop in the winter rainfall area of South Africa. The crop is also grown to a lesser extent in certain other areas. Although the crop is used primarily as a green manure crop in rotation cropping systems it also serves as sources of human food and livestock feed. Lupines are grown for grazing by sheep and also as a source of concentrates. In addition, the crop is utilized to some extent for hay and silage. Three species, all annuals, are of agricultural importance; they are white lupine L. albus L., bitter blue lupine L. angustifolius L., and yellow lupine L. luteus L. Lupines unlike sunhemp are susceptible to root-knot nematodes.

Other field crops worthy of mention include broomcorn, buckwheat, cactus, chicory, kafircorn, kaffir-watermelon, kale, saltbush (various species of Atriplex), serradella Ornithopus sativus Brot., sweetcorn, sorghum and tobacco. Popcorn and sweetcorn are included in the general discussion on field corn. Broomcorn and kafircorn will be included in the discussion of sorghums.

Many forms of spineless cacti are being investigated as a source of livestock feed by the various agricultural colleges and universities throughout the country. Indeed, numerous plantings of farm scale were observed in various parts of the country. Progress has been reported in the assessment of animal preference for the various ecotypes under evaluation. Those with a bluish-green color apparently grow at a more rapid rate than green types however the latter are preferred by livestock.

A large portion of the world's supply of chicory is grown in the eastern Cape Province. This field crop is entirely under the jurisdiction of the Chicory Control Board located at Alexandria, C.P. This root crop is planted at two seasons of the year and is

harvested during the summer months. All operations concerned with this crop are mechanized including land preparation, planting, cultivation, harvesting and processing.

Kaffir-watermelon, Citrullus lanatus (Thunb.) Mansf., deserves mention as an exotic and unique forage crop. This crop, which thrives in comparatively low rainfall areas, is grown for its melons to be used as livestock feed. An outstanding characteristic of the melons is their ability to resist decay for extended periods of time following maturity. The melons may and quite often indeed are left lying in the field until such time as they are needed for feed. The hard, tough outer covering acts to delay decay and retard desiccation thus providing an excellent source of supplemental feed during periods of extended drought. Some farmers harvest the crop which is stored in shaded sites until needed.

Various species of saltbush including Atriplex nummularia Lindl. have been used to limited degree as forage plants.

Sorghum is a major crop in South Africa inasmuch as it is a prime source of human food and livestock feed. Meal made from sorghum constitutes a significant portion of the diet of a large portion of the population, primarily the Bantu. Additional uses made of the crop include hay, silage and soilage. Extensive use is made of the crop by the brewing industry in making beer. Sorghum is jokingly referred to as the source of "poor man's beer" that is made and consumed by the colored natives, the Bantu.

There are many ecotypes of sorghum which have evolved in South Africa. Prior to the arrival of Europeans many of the native tribes were maintaining sorghums primarily as a source of food. Much of this material was originally collected from widely scattered locations. Today, the government has set aside many reservations called Bantu Areas for the habitation of the native colored people. These same sorghum collections with some additions are now being kept in these reservations. The genetic diversity represented by these collections constitutes a reservoir of available germ plasm of inestimable value. The most complete collection of Bantu sorghums is that maintained by the Estcourt Research Farm, Estcourt, Natal. The objective at this Research Farm regarding sorghums is that of the collection and maintenance of as many different so-called Bantu sorghums as possible. Kafircorn, one of the forms of Sorghum bicolor (L.) Moench, not adversely affected by drought and heat, is grown in limited amounts at widely scattered locations.

Corn is the most extensively grown field crop in South Africa. It is used as a prime source of human food and livestock feed; it also has additional industrial usage. Most of the crop is produced in the so-called "maize triangle" and its adjoining territories which lie in the summer rainfall area. The imaginary sides of this

triangle run westward from Barberton, Transvaal to Mafeking in eastern Cape Province, thence to Hobhouse in southeastern Orange Free State, and back to Barberton.

White and yellow dent corns constitute the major portion of the crop although some flint corns are also produced. Hybrids constitute approximately one-half of the total acreage at the present time. Some popcorn and sweetcorn is produced in addition to field corn.

Tobacco is grown in subtropical areas, usually where irrigation water is available.

Farming operations involving livestock are usually extensive rather than intensive in scope throughout South Africa. This type of farming is necessary when the considerations of climate, soils, topography, livestock breeds, quantity and quality of available livestock feeds are taken into account. Any discussion of the interaction of all the factors involved in livestock production is beyond the scope of this report. South African farmers rely heavily on the natural vegetation for their prime source of livestock feed. As a consequence many of their so-called pastures are in effect range lands by our standards. A large portion of the pasture land would fall somewhere between that of a highly developed pasture and range per se by U.S. standards. Certainly many of their pastures would more closely approach our range conditions when considered in terms of livestock carrying capacity.

Such practices as seeding, fertilization, weed control and liming, so essential in the development of improved pastures, appear to be the exception rather than the rule. One good practice; i.e., that of rotation grazing, is well established throughout the country however.

Very few forage crops, particularly grasses, were observed which had been established by seeding; alfalfa is an exception. Seeds of only a very few forage grasses and legumes are available through commercial channels. The paucity of commercial supplies of many needed forage crops is due primarily to the lack of seed producers throughout the country. As a consequence vast quantities of certain forage grasses are imported annually for domestic use; e.g., lovegrass Eragrostis species and buffelgrass, Cenchrus ciliaris L. Examples of pastures which had been established by planting include fields of weeping lovegrass, Eragrostis curvula (Schrud.) Nees and Eragrostis superba Peyr. located in the higher elevations of Orange Free State and Transvaal. Other fields of Tetrachne dregei Nees were observed. Kikuyugrass Pennisetum clandestinum Hochst. ex Chiov. was seen growing under highly variable conditions in all Provinces. This warm-season, low-growing, rhizomatous, stoloniferous, perennial sodgrass enjoys a

widespread distribution and good reputation throughout the country. Both agriculturists and farmers alike extoll its merits. Kikuyugrass does have two distinct disadvantages however; these are the necessity of costly vegetative establishment and its potentiality of becoming a serious pest. Despite this the grass has other desirable agronomic characteristics which overcome its deficiencies. Kikuyugrass is grown and used for many purposes. In addition to its use as a pasture and forage grass it also has widespread usage in erosion control. It is planted as a cover on public and private grounds, athletic fields, highway and railway embankments and on earthen dams used for impounding water.

Other forage grasses recommended include: Digitaria species, collectively called "Fingergrasses" in South Africa; elephantgrass, Pennisetum purpureum Schum.; Dallisgrass, Paspalum dilatatum Poir.; vaseygrass, Paspalum urvillei Steud.; canarygrass, Phalaris species; Bermudagrass, Cynodon dactylon (L.) Pers. and other species of Cynodon, collectively called "kweekgrass" in South Africa; Rhodesgrass, Chloris gayana Kunth; Themeda species; ryegrass, Lolium species; sudangrass, Sorghum sudanense (Piper) Stapf; Miscanthidium species and species of Eragrostis. Some of these grasses are endemic whereas other introduced species have escaped cultivation and are now widely distributed. The importance, abundance and distribution of certain species of Cenchrus, Panicum and Pennisetum warrants their inclusion in this list. Buffelgrass, Cenchrus ciliaris L., called "Bluebuffels" in South Africa, is widely distributed and ecotypes were collected in all four Provinces. "Kleingrass", Panicum coloratum L. and guineagrass, Panicum maximum Jacq. are two important pasture species in certain areas.

DIGITARIA COLLECTION

The records of New Crops Research Branch show that exotic germ plasm of Digitarias has been introduced into the U.S. for a period exceeding a half century. Over three hundred and fifty accessions were received during the interim 1911-1960. These accessions came from all parts of the tropical world in addition to some from temperate climates. Introductions have been received from widely separated sites in Africa and Australia. Additional accessions have come from Brazil, Paraguay, Uruguay and Venezuela. Still other accessions came from Afghanistan, China, India, Manchuria and Pakistan. Valuable germ plasm has come from the Caribbean and Philippine Islands in addition to Indonesia. Digitarias are indigenous to Africa which accounts for the fact that most of the exotic germ plasm came from that continent, particularly South Africa.

The most important single introduction of this genus by far is that of pangolagrass, Digitaria decumbens Stent, PI 111110. Since its introduction in 1935 from the eastern Transvaal in South Africa pangolagrass has become widespread throughout the tropics of the

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western hemisphere; indeed, it has been transferred literally around the world. This species, along with other agronomically important introduced species belongs in Henrard's Erianthae.

Taxonomic classification within the genus Digitaria is apparently difficult. Henrard, who monographed the genus, included more than three hundred species in his tome. The established agricultural value of many representatives of this genus overcome the seemingly insurmountable difficulties encountered in attempts at botanical classification which would be both satisfactory and indisputable. The subgenus Eu-Digitaria is subdivided by Henrard into several sections. Among these is Erianthae, based on D. eriantha Steud., and almost confined to Africa. Representatives of Eu-Digitaria are found in temperate and tropical regions of both hemispheres. They may be annuals or perennials, fertile or sterile, bunch or sod-forming and erect or prostrate. The perennial forms are usually caespitose having either rhizomes or stolons or both.

The so-called "Woolly Fingergrasses" of South Africa belong in the section Erianthae. Taxonomically, this section is by far the most difficult and complex in the genus and undoubtedly requires much additional study before the number of actual species in it can be determined accurately. Paradoxically it is this section which is of greatest agricultural and economic importance. Species included in this section are characterized in a general manner as being robust, rigid, erect or compactly caespitose or shortly geniculate-ascending perennials, often with stolons which root and shoot at the nodes. Some forms such as D. argyrograpta (Nees) Stapf and D. macroglossa Henr. are tufted and rhizomatous whereas still other species like D. milaniana (Rendle) Stapf contain ecotypes which are both rhizomatous and stoloniferous. A more detailed description of each species included in this collection along with information regarding collection and reported distribution is presented later in this report.

The Erianthae is further subdivided by Henrard into: "Erianthae genuinae" and "Erianthae setulosae," based primarily on the presence or absence of stiff bristles along the margins of the sterile lemma. Species in this collection belonging in Henrard's true Erianthae characterized by short pubescence on the sterile lemma, include: D. argyrograpta (Nees) Stapf, D. decumbens Stent, D. eriantha Steud., D. geniculata (Stent), D. macroglossa var. prostrata (Stent) Henr., D. milaniana (Rendle) Stapf, D. pentzii Stent, D. pentzii var. stolonifera (Stapf) Henr., D. polevansii Stent, D. polyphylla Henr., D. smutsii Stent and D. valida Stent. Those which are characterized as having soft hairs on the margins of the sterile lemma, "Erianthae setulosae," include D. milaniana subsp. eylesiana Henr. and D. setivalva Stent. All twelve species of Erianthae included in this collection are perennials.

Several Digitarias are of economic importance in South Africa. Among these are two well-known lawn grasses D. diversinervis (Nees) Stapf and D. swazilandensis Stent, locally known as "Richmond Fingergrass" and "Swaziland Fingergrass," respectively. Other species are used as forage grasses and for erosion control; paramount among these is D. smutsii Stent. One species from true Erianthae, D. decumbens Stent, has proven to be more valuable in the U.S. than all other introduced species combined.

This collection of Digitarias, including both seeds and/or vegetative stocks, was collected from plants growing in cultivation and in the wild. It is presented in tabular form in Table 1. The three hundred and sixteen accessions represent two subgenera, eight sections and twenty two species. Taxa of lower rank; i.e., subspecies and botanical variety, are also involved with some species. The preponderance of species belonging in the Erianthae was purposeful, based on the economic importance of this section.

Species other than those of the Erianthae involved in this collection include the stoloniferous perennial D. chevalieri Stapf and the rhizomatous perennial D. gazensis Rendle of Henrard's Cirripilae. The annual forms are D. ternata (Hochst. ex A. Rich.) Stapf of Henrard's Clavipilae and D. debilis (Desf.) Willd. of the monospecific section Debiles. The Sanguinales section contains the important lawn grasses; D. diversinervis (Nees) Stapf and the more widely distributed and popular species D. swazilandensis Stent.

The prostrate perennial, D. longiflora (Retz.) Pers., of the Verrucipilae and the rather coarse strongly rhizomatous perennial form D. tricholaenoides Stapf, belonging in a section of the same name, complete the species collected from the subgenus Eu-Digitaria.

The robust, perennial bunchgrass, D. diagonalis (Nees) Stapf, is the only representative included in the collection from the subfamily Setariopsis.

The spikelet hairs are an important diagnostic characteristic used extensively by taxonomists in classification; there are several different forms. The artificiality of Henrard's key, which is based largely on minor morphological characteristics, limits to some degree its usefulness in attempts at classification. Chippindall, with admitted reservation, bases her use of the stoloniferous growth habit as a diagnostic characteristic in attempting to provide a workable key within Erianthae on its previous use with other genera. The ease and accuracy with which this characteristic may be used as a diagnostic criterion where applicable overcomes to a large extent whatever inherent botanical limitations it may have. Contrarily, it is usually

1

more difficult to attain the same degree of accuracy when using the presence or absence of rhizomes in contrast to stolons as a diagnostic criterion, especially in making field collections.

A cursory examination of botanical literature reveals a consensus among botanists that the Erianthae section among others has been subdivided into too numerous taxa of lower category, based largely on taxonomic criteria of minor or secondary importance. Nevertheless, there is no indication, to my knowledge, that the highly desirable and much needed corrective action necessary to reduce the confusion found in existing literature has been undertaken by any one or group of botanists. Certainly such a project is most worthwhile when considered in terms of the economic importance of this genus in grassland agriculture. A cursory review of botanical literature indicates that the sciences of cytology and genetics were used sparingly if at all in the taxonomic classification of Digitaria. The reservoir of knowledge from these sciences should be utilized to its maximum extent by the systematist in future attempts at classification. These new tools should now be added to the "workshop" of the systematist.

The distribution and incidence of certain species governed in large degree the extent of their collection. Notwithstanding, certain species were collected with the intent of their direct use per se in agriculture whereas others were sought for use in basic research and still others for the improvement of currently held stocks through plant breeding techniques.

The agricultural and economic importance of the Erianthae section is reflected in the fact that the twelve species of this section constitute over ninety percent of the entire collection. More specifically, six species constitute over seventy-five percent of the collection; these are D. decumbens Stent, D. eriantha Steud., D. milaniana (Rendle) Stapf, D. pentzii Stent, D. smutsii Stent and D. valida Stent. The genetic diversity represented by this collection of exotic germ plasm was readily apparent through easily discernable morphological characteristics. In some cases species were collected in numbers thought sufficient to adequately sample the intraspecific genetic diversity found. Collections of species having little or no known agronomic value were made in an effort to satisfy the needs of those researchers involved in basic research.

TRANSVAAL

Plans for field trips were finalized in Pretoria through consultations with staff members of the Department of Technical Services, Botanical Research Institute, Horticultural Research Institute and

the Rietondale Research Station. The Department of Technical Services aided by furnishing transportation and qualified personnel familiar with the flora in the various areas in which collections were made. Invaluable assistance was forthcoming from the Botanical Research Institute regarding the location of materials being sought and in the identification and taxonomic classification of accessions collected.

Duplicate herbarium specimens were made. These specimens are on deposit in the National Herbarium in Pretoria and in the National Herbarium in Washington. They bear two sets of field collection numbers enabling them to be cross-indexed for future reference. The set of specimens on deposit in the National Herbarium in Washington also bear USDA plant introduction; i.e., PI numbers.

The initial collection trip was made through the Transvaal. This was followed by additional trips in Natal, Orange Free State and Cape Province in that order. This routing allowed maximum advantage be made of the climate and season. This schedule of collection proved to be a wise choice, particularly from the standpoint of rainfall distribution. Figure 1 shows the route followed on the various collection trips.

Pretoria, the capitol of Transvaal, is located approximately 26° south latitude and 28° east longitude. It lies in gently rolling hills. The soils in the immediate vicinity vary from sandy loams to clays in texture and from dark red to gray in color. There is considerable rock outcropping evident.

Rietondale Research Station

This research station is located on gently rolling terrain several miles east of Pretoria. The elevation at this location is 4460 feet; the annual rainfall, September - April inclusive, is 27 inches. It has a frost-free growing season of 306 days, August 1 - June 1. Snow is practically unknown; Pretoria experienced its first snow in over a century during the winter of 1964. The soils are colluvial sandy loams, reddish in color.

This station has the best collection of warm-season forage grasses in South Africa. Forage species have been assembled from all parts of Africa and elsewhere for the purpose of evaluation, utilization and distribution. Particular emphasis has been placed on those species endemic to South Africa in assembling this collection. In addition to the usual adaptation studies, which include seed increase and maintenance, plant breeding investigations are being carried out with certain species.

The collections of Cenchrus ciliaris L. buffelgrass, Pennisetum species millets, "Fingergrass" Digitaria species, and lovegrasses Eragrostis species are particularly outstanding. The collection of buffelgrass represents ecotypes collected from widely separated sites throughout the country.

The collection of Digitarias consists of over 800 clones, most of which came from South Africa. Other African states are the source of a considerable number of the accessions however. Full advantage was made of the excellent opportunity afforded by this collection for observations, note-taking and collection. The collection from this assemblage of diverse germ plasm undoubtedly includes a representative sample of the inter- and intraspecific variation present. Fortunately the test plots were sufficiently large so as to enhance the validity of field notes made on ground-cover and weed competition. The plants were sufficiently mature, many clones with mature seeds, to allow valid comparisons of relative maturity. Seeds and vegetative material, primarily the latter, were collected of approximately 225 clones, based on the premise that those collected were representative clones from the species present.

It is the Rietondale Research Station which received samples of the majority of those grass collections made in the field. Arrangements were made with the Officer-in-Charge whereby additional amounts of those accessions which failed to survive transfer to the States would be made available as replacements. Other warm-season grasses and legumes collected at Rietondale include species of: Arachis (perennial), Brachiaria, Cenchrus (Cenchrus ciliaris L., buffelgrass), Hemarthria and Pennisetum. Seeds of an ornamental deciduous shade tree, Schotia brachypetala Sond. were also collected. A detailed listing of all accessions collected is given in the "ENUMERATION OF INTRODUCTIONS."

Horticultural Research Institute

This institution is located at Roodeplaat near Pretoria on the Pienaars River. Research at this station is centered around vegetables, flowers and deciduous fruits. One staff member spends the major portion of his time on turf grasses. The station maintains a good species collection of Gladiolus and Watsonia; in addition, a good collection of grapes is held by this station. Corms of an aromatic form of Gladiolus tristis L., and several clones of lawn grasses were collected at this station.

Pretoria lies in a so-called transitional zone characterized by the rainfall averaging more than 20 inches per annum with tall grasses predominant. To the north of this zone lies the vast "bushveld" varying in elevation, soils and rainfall. Grasses

collected enroute between Pretoria and Pietersburg include species of Aristida, Brachiaria, Cynodon, Digitaria, Enneapogon, Eragrostis and Sorghum. Legumes which were collected include species of Indigofera, Peltophrum and Rhynchosia; in addition accessions of Cucumis, Hibiscus and Sesamum were included. Irrigated citrus orchards, field corn, peanuts and sunflowers were observed growing in this area. Beef cattle comprise the major livestock produced.

Towoomba Agricultural Station

Various citrus trials were observed at this station located on the Nyl River. Grazing trials with pasture grasses were observed which include species of Cenchrus, Digitaria and Panicum. Digitaria and Panicum accessions were collected from field plots on this station.

That region around Pietersburg referred to as "Springbok Flats" is characterized by rolling terrain, fairly fertile soils and an annual rainfall of 20-30 inches. The mountainous undulating terrain called the "Pietersburg plateau" lying between Pietersburg and Louis Trichardt was traversed. Grasses collected between Pietersburg and Louis Trichardt include Digitaria, Enneapogon, Eragrostis, Panicum and Urochloa.

Numerous rock outcroppings characterize the area and some streams form rather narrow deep channels affording many shady, moist sites. It is from such sites that several Hibiscus species were collected along with the ornamental winged treebine Cissus quadrangularis L. and one wild cotton, Gossypium herbaceum var. africanum (Watt) Hutch. & Chose. The latter was collected in overgrazed rangeland along the Mutale River flood plain north of Louis Trichardt.

A small narrow belt with a characteristic east-west axis lying north of Louis Trichardt is characterized by having over 35 inches of rainfall per annum. Such areas are referred to as "mistbelts." Extensive tree farming is the general practice in the so-called mistbelts found in widely separated sites throughout the country. Eucalyptus species predominate; this timber is used primarily as mining timber in addition to its use in the manufacture of furniture. The extensive forestry plantings on both public and private land, all being carried out on a scientific basis, make timber a cash crop of major economic importance in certain areas. Timber is grown on land not otherwise suited for farming operations. The diversification afforded by tree farming makes it an attractive adjunct to livestock farming in many sections of the country.

Species of Acacia and Cassia are commonly found among the shrub utilized as browse plants. Outstanding among the latter is Cassia abbreviata var. granitica Bak. f., the pods and foliage of which are relished by cattle. Species of Cenchrus, Cynodon, Digitaria, Enneapogon, Panicum, Themeda and Urochloa are

commonly found in the overgrazed rangeland throughout northern Transvaal.

Timber is a cash crop in the foothills of the western slopes of the Drakensberg range in the Duiwelskloof - Tzaneen area. This area is characterized by hilly terrain and an annual rainfall above 35 inches. The area is free of frost despite its elevation. Species of Brachiaria, Digitaria, Panicum, Paspalum, Sorghum, Stereochlaena, Pennisetum and Trichopeteryx were collected enroute between Louis Trichardt and Tzaneen. Field crops common to the area include alfalfa, corn, cotton and tobacco. Cowpeas and particularly sun-hemp, Crotalaria juncea L., are utilized extensively as summer cover crops throughout the area. Extensive citrus plantings were observed in this area, this crop being grown in conjunction with tree farming.

The eastern slopes of the Drakensberg range are characteristically dry with rather wide river valleys, many of which may be referred to more accurately as flood plains. The elevation decreases as one moves eastward and southward toward the "lowveld" of the eastern Transvaal. The flora is characterized by xerophytic shrub and predominately sodforming perennial grasses. This frost-free area is characterized by level to gently rolling terrain with irrigation water available from the many rivers which traverse the area. That area extending eastward from Lydenburg to White River is characterized by mountainous terrain; its rainfall lies between 30 and 40 inches per annum. Some of the mountainous plateaus are extensive in scope and very level with very little tree or shrublike vegetation. The valleys of the smaller rivers, which are tributaries to the Crocodile River, are characteristically narrow. Soils at the higher elevations are primarily clays ranging to sandy loams. Field crops commonly grown in the hilly area include corn, peanuts, sorghum and sunflower.

Ehrharta, Setaria and Themeda triandra Forsk. are the prominent grasses at the higher elevations. Some Cynodons and sedges were observed on the plateaus; Cynodon hirsutus Stent was collected at 7,000 feet elevation near Lydenburg. Other grasses collected on the route Tzaneen - Lydenburg - Sabie - White River include species of: Agrostis, Cenchrus, Chloris, Digitaria, Ehrharta, Enneapogon, Eragrostis, Loudetia, Michrochloa and Setaria. Digitarias were found mostly at the lower elevations. Species of Gladiolus, Hibiscus, Pterocarpus and Trichilia were collected from this area.

The lowveld of the eastern Transvaal is characterized by level to gently rolling terrain with wide river valleys and flood plains. The soils vary from sands to heavy clays in texture and from reddish-brown through gray to black in color. Irrigation water is available from the many rivers which traverse the area although

the rainfall is only 20-30 inches per annum. This frost-free area is devoted to beef cattle production and large acreages of citrus and cotton are grown.

Xerophytic shrub and scrub timber are seen throughout the area with many species of Acacia constituting noxious weeds on grazed lands. The natural vegetation is savannah throughout with wide differences in botanical composition. Unfortunately tick-borne diseases affect the livestock industry of the area. The grasses indigenous to the area are perennial sod-forming types rendering them equally adaptable as permanent pasture grasses or for erosion control. Easily discernable differences were evident between the various ecotypes of the species observed and collected.

The lowveld of the eastern Transvaal to include the Kruger National Park constituted the prime area of collection of Digitarias on this expedition. The next most fruitful area of collection is that of the coastal regions of Natal and Zululand, which will be discussed later. Visits were made to two research stations located in the lowveld; they are "Citrus and Subtropical Horticultural Research Station" at Nelspruit, and the "Lowveld Agricultural Research Station," located at Barberton.

Subtropical Horticultural Research Station

This station specializes on citrus and subtropical fruits. Vegetable research is directed to meet the requirements of the area. Citrus orchards observed on this station contained Rhodesgrass, Chloris gayana Kunth and various Digitaria species as weeds. Unfortunately this station was visited on Sunday and consequently no personnel were contacted.

Lowveld Agricultural Research Station

Research at this station centers around cotton, a major cash crop of the area. Although only short staple varieties are grown the crop is grown under both dryland and irrigation conditions. This station has the best avocado collection observed throughout the country. The collection of tropical and subtropical grass duplicated many of those found at the Rietondale Research Station in Pretoria. These were observed in field plots from which accessions of Cenchrus ciliaris L. and Digitaria were collected.

It is believed that some of the most promising Digitaria accessions collected came from the Crocodile River valley system which includes the narrow valleys of its tributaries, especially the Elands and Komati Rivers. The following Digitarias collected in this general area are considered of high potential value based on field observations: the annual species, D. debilis (Desf.) Willd., PI 299596 (314); the perennials, D. decumbens Stent, PI 299602 (316) and

D. valida Stent (313). Other Digitarias collected along the Crocodile River at Hectorspruit, Komatipoort, Louws Creek and Malelane may contain valuable germ plasm for drought resistance based on the resistance they exhibited when collected. Additional drought resistant clones may be found among those collected in the Kruger National Park. Other grasses collected in the lowveld exclusive of the Kruger National Park include Bothriochloa, Cenchrus ciliaris L., Panicum coloratum L., PI 300036 (333) and Sorghum. The semi-erect panicgrass, Panicum coloratum L., forms large clumps and roots at the basal nodes.

Collection in the Transvaal was concluded by a trip into the southern portion of the Kruger National Park. These collections are discussed separately for sake of clarity. The numbers in parenthesis following the PI number are my field collection numbers.

Kruger National Park

The Crocodile River forms the southern boundary of this park. The terrain through which we traveled was generally level. The soils are grey to black in color and vary from sandy loams to clays in texture. The flora consists of shrubs and scrub timber among which many grass species occur. Outcroppings of basalt are common. Due to the paucity of rainfall, about 21 inches per annum which decreases in a northward direction, artificial ponds are made to supply the indigenous wild animals with ample water. The combination of low rainfall and sandy porous soils is conducive to the existence of drought tolerant ecotypes of many grass species. The protection afforded the wildlife, both the fauna and flora, permit vivid demonstrations of selective grazing by the free-ranging wild animals as regard inter- and intra-specific selectivity. The choice of animal species superimposed on the variables of grass species and soil type complicate any conclusions which may be drawn from such observations. Despite this known inherent limitation however vivid inter-specific differences were observed as regards the choice of free-ranging animals as equally easily discernable intra-specific differences were observed on species occurring on different soils.

Rhodesgrass, Chloris gayana Kunth and Chloris myriostachya Hochst., of potential value as an ornamental, are among the grasses collected from Kruger National Park. Other grasses collected in the park are: Anthoschmidtia, Dactyloctenium, Digitaria, Enteropogon, Eragrostis, Microchloa, Panicum, and Sporobolus; in addition, Crinum, Hibiscus, Indigofera, Sesamum and Tephrosia were included.

Potchefstroom College of Agriculture

Although this college was on the itinerary of places to visit unfortunately due to a delay in schedule the brief visit was made

on Sunday. The research conducted at this institution is directed primarily toward serving the Highveld Region of the Transvaal. The college is located near Potchefstroom on the Vaal River in southwestern Transvaal. Plant breeding and general agronomic investigations on many common field crops are done at this college. It is here that corn breeding is being done for that area defined as the "corn-triangle." Other field crops on which breeding investigations are being carried out include spineless forms of cacti, peanuts and sunflower. The widely known peanut variety 'Natal Common' originated here.

NATAL

The collections from Natal began with those made in the vicinity of Estcourt.

Estcourt Research Farm

The Estcourt Research Farm consisting of several thousand acres is located on hilly to mountainous terrain at 29° S. - 30° E. with elevations within the 3,000 - 5,000 foot range. The combination of geographic location and elevation render certain regions of the Farm frost-free whereas others are not.

Acquisitions obtained as vegetative planting stocks include those collected from the wild along with those collected from field plots. Other accessions include those of commercial seed which were either purchased from seed stores or donated by the Research Farm. Seeds of several promising breeding lines of Dallisgrass, Paspalum dilatatum Poir. are among the grasses obtained. Other grasses include Brachiaria, Chloris, Digitaria, Setaria, Urochloa and an established Natal variety 'Kromdraai' of weeping lovegrass Eragrostis curvula (Schrud.) Nees. Two grasses collected from this station warrant special mention. A cold tolerant clone of Digitaria tricholaenoides Stapf, PI 299842 (407) is reported to withstand temperatures to 5° F. This clone which is adapted to a 40-inch rainfall belt grows well on vertical banks making it desirable for erosion control. Another strongly rhizomatous perennial, widely utilized in siltbed stabilization is that of the 'Wassenaar strain' of Pennisetum sp. (409).

Commercial seeds obtained from the Estcourt Research Farm include the genera Glycine, Lespedeza, Lotus, Lupinus, Medicago and Pueraria. Seeds of Digitaria smutsii Stent, PI 299832 (401), are from commercial stocks. Bush and climbing beans Phaseolus vulgaris L. and broadbean, Vicia faba L., were purchased from seed stores.

Collection trips were made in an easterly direction from Estcourt

into the Bushmans, Mooi and Tugela River valleys. The terrain covered was hilly to mountainous with narrow river valleys. The narrow valleys of the Bushmans and Mooi Rivers are particularly hot and dry. The annual rainfall is 15-20 inches accompanied by summer temperatures exceeding 100° F. for extended periods. Numerous outcroppings of rock are evident. The soils vary from sandy loams to clays. The vegetation is composed largely of undesirable shrub with very little grass cover in highly eroded areas. Clones of Digitaria were collected from this area which may possess the desirable characteristic of drought tolerance. Outstanding among the drought tolerant clones from this area is that of Digitaria macroglossa var. prostrata (Stent) Henr., PI 299652-3, of which both seeds and vegetative material was collected. Rhodesgrass, PI 299551 (427) and Eragrostis species were collected from these river valleys. Three accessions collected from a wet streambed include: Fingerhuthia sesleriaeformis Nees, PI 299968 (413), Senecio achilleaeifolius Thunb., PI 302758 (414) and Vigna wilmsii Burt-Davy, PI 300176 (412).

University of Natal

The University of Natal is located at Pietermaritzburg. Fruitful discussions were held with staff members of the Department of Botany of the university regarding proposed collections from Natal and Zululand. These discussions were held in conjunction with a cursory examination of the herbarium and one botanist was assigned to accompany me for the remainder of the trip through Natal and Zululand. Very few forage plants are maintained on the University Farm however this university maintains one of the better herbariums seen in South Africa.

The coastal area of Natal including the lower reaches of the Pongola and Tugela River valleys is second only to the lowveld of the eastern Transvaal in furnishing materials thought to be of most value in this collection. The trip included visits to two National Game Reserves in which collections were made; they are the Hluhluwe and Umfolozi Game Reserves. The circuitous route traveled with Pietermaritzburg as base included Sevenoaks, Greytown, Stanger, thence along Highway N-14 to Empangeni and Mkuze with side trips along the way. Several days were spent exploring the southern bank of the Pongola River into Tongaland. The same highway, N-14, was followed on the return leg of the journey to Durban, thence to Pietermaritzburg.

Sixty-six accessions were collected in this area during early March. The sandy coastal soils and river valleys were particularly fruitful areas of collection. Field crops observed in the hilly country removed from the Indian Ocean include corn, peanuts, sorghum and sunflower. Sisal plantations are common

near the Indian Ocean at the lower elevations. Vegetable gardens included the usual vegetables adapted to warm climates. The complete absence of okra in vegetable gardens indicates it is either unknown or not popular as a vegetable anywhere in the country. Eggplant and common and sweet potatoes are common vegetables in Natal. A wide variety of vegetables belonging to the Cucurbitaceae family are popular throughout South Africa as they are found in abundance in the open markets in the towns and cities. Summer squash and cucumbers are particularly plentiful. Watermelons and canteloupes are also popular with particular emphasis on the former.

Seeds of cultivated sunflower and watermelon were collected along the Pongola River. The legumes collected in addition to the common peanut include species of Cassia, Desmodium, Dolichos, Indigofera, Leucaena and Rhynchosia.

The common coconut is found along the beaches and estuaries as is the Natal plum, Carissa grandiflora (E. Mey.) DC. This semi-viny shrub is common along the roads and enjoys extensive use as a cultivated plant for both its aesthetic and food value. The dwarf pomegranate, Punica granatum L. was collected however the dwarf coconut, Cocos nucifera L., common to the Caribbean, is unknown.

Buffelgrass, bermudagrass, Cynodon dactylon (L.) Pers. and species of Digitaria, Eragrostis, Pennisetum and Sorghum are commonly found as weeds. Twenty five Digitarias were collected in Natal and Zululand, seven of which came from the game reserves. Other grasses included accessions of Cenchrus, Chloris, Dactyloctenium, Eragrostis, Eulalia, Lintonia, Panicum, Setaria, Sorghum, Sporobolus, Tetrapogon and Urochloa.

Hluhluwe Game Reserve

This game reserve is noted for its white rhinoceres which are primarily grazers whereas the black rhinoceres common to the Umfolozi Game Reserve are primarily browsers. The rolling to hilly terrain varies from 500 to 1,000 feet in altitude. It is cut up with a few running streams surrounded by narrow valleys. The soils vary from sands to clays in texture and from reddish brown to almost white in color. The rainfall of 30 - 35 inches per annum is fairly well distributed which is conducive to a flora characterized by shrubs and scrub timber in association with grass. Digitaria swazilandensis Stent is predominant among the Digitarias found on this reserve; it is readily grazed by the wild animals. Other Digitarias collected in this reserve include D. longiflora (Retz.) Pers., D. macroglossa Henr., D. pentzii Stent and D. pentzii var. stolonifera (Stapf) Henr. Two legumes were collected from open grassland; they are Desmodium cafferum (Meyer) Druce PI 299590

(443) and Dolichos taubertii E. G. Baker, PI 299896 (442).

Umfolozi Game Reserve

This game reserve lies due west of the St. Lucia estuary on the Umfolozi River. The topography is more mountainous than that found in the Hluhluwe Game Reserve. There are less sand and more clay soils. The annual precipitation is less than that for the Hluhluwe Game Reserve and this is discernable in the flora. The flora consists of shrub and trees interspersed with large areas of grassland. Cynodon, Digitaria, Eragrostis, Panicum and Pennisetum are among the grasses observed growing on hillsides and along the narrow valleys. Sedges, elephantgrass, Pennisetum purpureum Schum. and blackberries are common along the stream banks along with guineagrass, Panicum maximum Jacq.

Eragrostis superba Peyr., PI 299957 (481) and PI 299958 (482) collected in this reserve produced a moderately heavy seed crop although the quantity of foliage may leave something to be desired. Two stoloniferous Digitarias and seeds of a malvaceous shrub, Cienfuegosia hildebrandtii Garcke are included in the collection from this reserve.

Digitaria diversinervis (Nees) Stapf appears to be particularly adapted to sandy soils on shaded locations. One accession, PI 299611 (428), was found growing on the bank of the Umgeni River in grey sand on a moderately shaded site; this particular grass showed signs of having been grazed. Another clone, PI 299612 (435), was located near the Tugela River on sandy soil in deep shade of mature Eucalyptus forest.

Digitaria macroglossa Henr. is adapted to a wide range of soil types and rainfall patterns. This rhizomatous bunchgrass forms large clumps thus effectively acts as a soil-binding perennial on many soil types under highly variable conditions. Coastal sand dunes are a common site along the Natal coast; some dunes reaching several hundred feet in height. This species was observed growing in large clumps along the foredunes at the St. Lucia estuary where it was effectively stabilizing sand. One particular vigorous clone, PI 299648 (488) was collected near the Indian Ocean which was thriving in a marine climate under the influence of salt spray.

One accession of D. decumbens Stent, pangolagrass, PI 299608 (472), collected in Tongaland in pure sand near the Pongola River exhibited good drought tolerance as did D. pentzii Stent, PI 299769 (468) and PI 299770 (469).

One accession of particular interest is that of an apparently new species of Eragrostis, PI 299963 (454) collected at Pongolapoort near the Pongola River.

ORANGE FREE STATE

The collection trip in Natal was followed by similiar trips in the central and eastern portions of the Orange Free State. The initial collection trips were made by using Bethlehem Research Station as a base and included the Harrismith - Bethlehem - Marquard area skirting the northwestern portion of Basutoland. This area is characterized by mountainous plateaus ranging from 5,000 to 6,000 feet in elevation having an average annual rainfall range of 30 - 45 inches. The terrain ranges from level plateaus through undulating to mountainous in the proximity of the Basutoland border. Some portions of the area lie in the socalled mistbelt in which corn, sorghum and sunflower predominate and tree plantations are common. Some clovers are grown, primarily 'New Zealand white', in grass-legume combinations by the more progressive farmers. These are utilized as meadow or for grazing. Corn and sorghum are used as a source of silage usually ensiled in trench silos. Excellent crops of sunflower were observed growing in the mistbelt between Clarens and Bethlehem. Sorghums and pearl millet are particularly adapted to this area. Fields of corn located along Highway N-5 between Bethlehem and Harrismith were being harvested in their entirety in a dry stage for silage as the grain yield was insignificant due primarily to lack of moisture. The interesting fact was uncovered that the farmers of this area are as stubborn as they are the world over by their repeated attempts to grow a crop in an area which is climatically completely unsuited for the particular crop.

Species of Eragrostis, particularly the low-growing types, are the dominating grasses found in the pastures and range lands. Dallisgrass, Paspalum dilatatum Poir. and kikuyagrass, Pennisetum clandestinum Hochst. ex Chiov., are planted as pasture grasses throughout the area. Eragrostis curvula (Schrad.) Nees, E. chloromelas Steud., E. obtusa Munro, E. patentissima Hack. and E. racemosa (Thunb.) Steud. are common in the imaginary triangle formed by Bethlehem - Clarens - Harrismith. Another grass forming a thick mat on rocky mountainous soils which is relished by sheep is Brachiaria serrata (Thunb.) Stapf var. gossypina (A. Rich) Stapf. Occassionally species of Fingerhuthia a tall bunchgrass and Digitaria tricholaenoides Stapf were found, particularly in the higher rainfall areas.

Bethlehem Research Station

This research station is located on level to undulating terrain a few miles from the city of the same name. The average elevation is 5,400 feet and the annual rainfall is only 26 inches. The station grounds are maintained in an excellent condition and conspicuous plantings include the lawngrass Cynodon dactylon (L.) Pers. var. 'Harrismith fine' and beautiful specimens of Eucalyptus.

The lawngrass was particularly green and beautiful and upon inquiry it was discovered that it was not irrigated.

Research on forage grasses at this station is centered around Eragrostis. Agronomic studies with this crop involve plant breeding investigations aimed toward the production of high yielding, drought tolerant types with good seeding capabilities. This station has the best collection of Eragrostis observed throughout South Africa. Researchers interested in Eragrostis should contact this station regarding an exchange of information and plant materials. Seeds of five varieties of common cowpea, Vigna sinensis (Torner) Savi were collected at this station; they include PI 300171-300175 inclusive. Arrangements were made to obtain some of the better ecotypes of Eragrostis from this station at the conclusion of the current growing season.

Moving westward through central Orange Free State toward Kimberley, C.P. the terrain becomes gently rolling to level. Vast stretches appear to be absolutely level as far as the eye can see. Curious shaped protrusions locally called "Koppers" varying in area, shape and height may be seen scattered throughout the almost level terrain. Xerophytic shrub is common to these sites. Natural salt deposits occurring in so-called "salt ponds" are common in the area between Bloemfontein and Kimberley. The rainfall diminishes in a westward direction to about 15 inches per annum in the extreme western Orange Free State. The rivers in the area afford a limited amount of water for irrigation. The elevation diminishes in a westward direction.

The composition of the flora of the western Orange Free State is characteristically grasses, primarily drought tolerant species. Species of Acacia and Opuntia are common range weeds. Corn, millet and sorghum were highly variable in this area due perhaps to the combination of variety, planting data and rainfall pattern. Wild asparagus and Cynodon dactylon (L.) Pers. are common near the streams of southwestern Orange Free State.

Livestock consist primarily of sheep with some grade beef cattle and fewer dairy cattle seen. Goats and swine were conspicuously absent in appreciable numbers.

Glen Agricultural College

This institution, which serves as the agricultural college of the Orange Free State, is located on level terrain along the Modder River near Bloemfontein. The summer climate is characteristically hot and dry. Temperatures during the summer months often exceed 100° F. for extended periods and the annual rainfall is approximately 20 inches.

The college grounds are beautifully landscaped, as are those of the Bethlehem Research Station, insofar as the climate and water supply permit. The vividly green irrigated lawns of 'Harrismith fine' bermudagrass stand out in sharp contrast to the surrounding dry and brown vegetation. Eucalyptus species are employed extensively as shade and ornamental trees around the college as well as in the city of Bloemfontein.

One scientist on the staff of the college is employed to do fulltime research on pastures. This gentleman was my companion on collection trips made on the college grounds and throughout western Orange Free State. Accessions acquired at Glen Agricultural College included those collected from the college grounds and some from their collection of forage species. Emphasis in forage crop research is placed on the collection and evaluation of drought tolerant range grasses in contrast to the employment of plant breeding techniques in the development of desirable clones or varieties. Forage utilization and range management studies constitute other lines of research being followed at this institution.

The sandy soils in the immediate vicinity of the Modder River, flowing through the college grounds and on which some collections were made, are grey in color and medium coarse in texture. Other collections were made on heavy clay soils varying in color from bright red to black. A few accessions collected on the college grounds are interesting and may possibly prove to be worthwhile based on field observations. One clover accession, Trifolium africanum Seringe in DC., PI 300146 (530), was collected from sandy soil in the Modder River bed, growing in a 20-inch rainfall belt. Two peanuts, one established variety and the breeding line 'Mambelele P4934', were obtained from the college.

Two Digitarias, growing as weeds on the experimental farm were included; they are D. eriantha Steud., PI 299632 (547) and D. pentzii Stent, PI 299772 (545). Outstanding among the weeping lovegrass Eragrostis curvula (Schrud.) Nees collection is that of PI 299920 (531) collected from sandy soil along the bank of the Modder River. The vigorous plants are very leafy and form large clumps which produce an abundance of seeds. Two grasses found growing in the mud of a partially dry streambed are of interest, they are: Echinochloa holubii Stapf, PI 299897 (529), a reportedly palatable bunchgrass and a rhizomatous perennial, Paspalum notatum Fluegge, PI 300078 (527).

The route of one collection trip along Highway N-8 from Bloemfontein included Dealsville, Boshof and Kimberley in extreme eastern Cape Province. This trip extended some thirty miles westward from Kimberley, thence southeasterly through Jacobsdal and Petrusburg to Bloemfontein. The area covered was level to gently rolling terrain with occasional rock outcroppings. The soils were shallow and rocky except near the rivers. The annual rainfall averaged 15-16 inches. Cacti and Acacia shrub are common weeds. Much of the area is sparsely covered by any form of vegetation.

Drought tolerant grasses collected from this area include Antheophora pubescens Nees, PI 299464 (549), adapted to sandy soils, and species of Anthoschmidtia, Aristida, Cenchrus, Cynodon, Eragrostis, Eustachyus and Rhynchelytrum. A perennial bunchgrass having strong rhizomes, Digitaria polevansii Stent, PI 299784 (557), was found growing in full sun on shallow rocky soil in a 15-inch rainfall belt. Another stoloniferous perennial was found growing as a weed in an irrigated peach orchard, Digitaria valida Stent, PI 299888 (561).

CAPE PROVINCE

It is a wellknown fact that the flora of the Cape Province is as diversified perhaps as that found almost anywhere in the world. One only has to visit the Cape during any season of the year in order to be convinced of this. All environmental factors including soils, topography and climate are conducive to this diversification. Although the beautiful Proteas were not in full blossom during late March and early April when traveling through the eastern and southern Cape the landscape abounds in flora some of which is brightly colored and most of which is exotic to me.

The indigenous wild flowers alone are something to behold indeed and once observed they become stamped in unforgettable memory.

Excluding that area described in the preceding section of this report, travels in the Cape Province included the routing Middelburg - Graaf-Reinet - East London - Port Elizabeth - Humansdorp - Cape Town. Various universities, colleges, botanic gardens and experiment stations were visited throughout the area for purposes of establishing contacts and the exchange of information and plant materials. Collections included those made at the various research establishments and institutions visited and in addition to those made in the field. Cape collections began with those made at Grootfontein Agricultural College located at Middelburg.

Grootfontein Agricultural College

This agricultural college is located near Middelburg in an area referred to as the "Marginal Karroo." The lands belonging to the college are extensive by our standards. The terrain in this area is generally level to gently rolling varying from 4,000-4,500 feet in altitude. The annual precipitation of only 13 inches is conducive to drought tolerant species. Trees and desert shrub although present are scarce. Beautiful Eucalyptus trees, some 3 feet d.b.h., are common along the irrigation canals and ditches. Eucalyptus trees are planted as ornamental shade trees in the area; they are also widely used as shade for livestock, especially near watering sites.

Arrangements were finalized and the detailed itinerary was completed

for travels through the Cape Province at Grootfontein Agricultural College. During these travels I was accompanied at various times by Pasture Officers, Extension Agents and, on occasion, botanists. Three aspects of research being conducted at Grootfontein Agricultural College were impressive. Members of the Horticulture Department are assembling indigenous xerophytic shrubs for evaluation as potential range plants and for further assessment as potential ornamentals. Their collection of xerophytic shrubs is most striking. This would be an excellent source from which correctly identified plant materials may be obtained. This is true because botanical identification, to include the occurrence and distribution of species, constitutes the second aspect of research mentioned. The botanical research is more inclusive than that which only concerns xerophytic desert shrub however. The college herbarium is comparatively small. The third aspect of research is that which concerns forage crops and their utilization. This area of the eastern Cape Province is sheep country and consequently research at the college is oriented around this class of livestock. Long term experiments are underway concerning grazing trials involving carrying capacity, rotation grazing and its effect on changes in the composition of vegetation. Other utilization phenomena are also being studied. Research in the Agronomy Department includes plant breeding and other general agronomic investigations. Emphasis is placed on drought tolerance, palatability and productiveness with all forage crops. One interesting aspect of the adaptation studies being conducted with forages is the attention being given to wild plants of potential value as browse plants. Outstanding among these is "Spekboom," Portulacaria afra Jacq., seeds of which were obtained from the college. This succulent, browse plant has small leaves; it attains a height of 10-15 feet and is adapted to dry, shallow, rocky soils. It is reproduced by seeds or cuttings and is readily browsed by all classes of livestock. Research with forage legumes appeared to be centered around clovers and alfalfa. Seeds of several promising breeding lines of white clover were obtained from the college.

Seeds were collected of some forage grasses found on the college farm although there may be some doubt as to their viability. Seeds of Aristida, Cenchrus, Chloris, Digitaria, Ehrharta, Eragrostis, Fingerhuthia and Sporobolus are included.

The terrain becomes more broken and mountainous in nature moving southward from Middelburg toward Cradock and Graaf-Reinet. The shrubs and scrub timber along the rivers are larger in size than those further north. Still further south the terrain becomes hilly around Somerset East and Acacia and spiny cacti are noxious weeds on the ranges. Sheep comprise the major class of livestock found throughout the eastern Cape Province; several well-known breeds were observed in the Somerset East region. The flora can best be characterized as that of shrub, cacti and scrub timber, interspersed

with sparse stands of drought tolerant grass species. The rainfall gradually increases from about 12 inches per annum around Cradock to about 30 inches per year at East London. Guinea grass, Panicum maximum Jacq. appears 30-50 miles inland from the coast. Generally the same forage grasses were collected in this area as given for the area around Middelburg with the additions of Miscanthidium, Panicum, and Setaria. Two easily discernable types of Australian saltbush Atriplex semibaccata R. Br. found growing at 4,000 feet are of interest. Both red- and yellow-seeded types, each with a crown spread of 4 feet, were growing in association; seeds of the yellow-seeded type were assigned plant introduction number PI 299488 (596) whereas PI 299489 (597) was assigned the accession with red seeds. Wild asparagus is common in the southeastern Cape Province, occurring in waste lands, pastures and fence rows.

East London is a sprawling city on the Indian Ocean which enjoys a semi-tropical climate as does Port Elizabeth located further south. Palms, Chinese hibiscus Hibiscus rosa-sinensis L. and other warm-season plants are commonly found. Bermudagrass, Digitarias, guinea grass, rhodesgrass and vaseygrass, Paspalum urvillei Steud. are weeds on the waste grounds in the city. Bermudagrass, tropical carpetgrass Axonopus compressus (Swartz) Beauv., Dactyloctenium australe Steud., Digitaria swazilandensis Stent, kikuyugrass and St. Augustinegrass Stenotaphrum secundatum (Walt.) Kuntze are found in the lawns. Seeds of "Durbangrass", Dactyloctenium australe Steud., growing in a seaside park exposed to salt spray were collected and assigned PI 299588 (613).

Pineapple Research Station

This research station is located in gently rolling hills just west of East London. As the name implies the research activities of this station are centered around pineapple. Commercial production of this crop is centered around the East London - Port Elizabeth area. The two most important varieties grown are 'Cayenne' and 'Queen' which is used for the domestic fresh fruits market whereas 'Cayenne' is used mainly for canning. This latter variety constitutes over 90 percent of the total production in South Africa. Fruits of the 'Queen' variety grown in northern Transvaal were sampled and found to be of excellent quality. One interesting phase of the research being carried on at the station concerns the utilization of fiber in the leaves of pineapple plants. Research is centered around processes whereby this byproduct may be utilized to economic advantage.

A strongly rhizomatous perennial, Digitaria macroglossa Henr., PI 299649 (620), was found growing as a weed on the station.

The route traveled southward from East London to Cape Town followed the coast insofar as was feasible. This routing was

chosen because it was felt that it would afford the best opportunity of collecting the desired species at the lower elevations near the ocean. The first experiment station visited south of East London is located about twenty miles inland near Bathurst.

Bathurst Agricultural Research Station

The research being conducted at this agricultural research station is directed toward the dairy industry. The station, comprising considerable acreage, is located in hilly terrain near Bathurst. The soils are reddish clays and the annual rainfall is 27 inches. The best collection of Panicum species found throughout South Africa is located here on which observations were made and from which accessions were obtained. Accessions of Cenchrus, Digitaria and Eragrostis were also obtained from this station.

Although the Stutterheim Agricultural Research Station located near Dohne was not on the itinerary, accessions were obtained from this institution through the courtesy of the Pasture Officer of the Region who is stationed there. These accessions include Miscanthidium capense (Nees) Stapf and the legumes Dolichos, Lupinus, Stylosanthes and Trifolium.

Dairying is a major livestock industry in the extreme eastern Cape Province, especially near the larger cities which dot the coastline. The following grass genera were observed in the pastures of this area: Agropyron, Cenchrus, Chloris, usually Chloris gayana Kunth, Rhodesgrass, Cynodon, Digitaria, Eragrostis, Panicum, Paspalum dilatatum Poir., Schismus and Stipagrostis. Accessions of these genera, collected largely by seeds, are among the collections made along the so-called "Garden Route" along the coast south of Port Elizabeth enroute to Cape Town. An interesting field crop grown near the coast north of Port Elizabeth is chicory. The production, processing and marketing of this root crop is controlled by the Chicory Control Board with headquarters at Alexandria. Two interesting and useful legumes were collected in the city of Port Elizabeth; Acacia cyclops A. Cunn ex Don, PI 299455 (675) and Leucaena leucocephala (Lam.) de Wit, PI 300011 (674).

Huge sand dunes up to several hundred feet high occur along the coastline of Natal and the Cape Province. These dunes pose a problem to both city dweller and the farmer. The "Port Jackson willow" Acacia cyclops A. Cunn ex Don was introduced into South Africa from Australia in an effort to obtain a plant satisfactory for sand dune stabilization. This shrub or small tree grows well in sand exposed to wind and salt spray. In fact it has become a weed tree thereby migrating inland for many miles. Thickets of this willow forming dense stands were observed in both protected and windblown sites very near the ocean. To a less extent sand dunes surround the shallow rivers flowing through level terrain

before they empty into the Indian Ocean. As sand dune stabilization plants were included among the materials being sought a trip was made down the Sundays River in Cape Province in search of promising species. In addition, a visit was made to the Forest Station located at Stilbaai where research on sand dune stabilization is underway. Seeds of some species included in the trials of the Forest Station was obtained. They include: Agropyron distichum (Thunb.) Beauv. "Seawheat" PI 299459 (693), Cotyledon orbiculata L., PI 299565 (694), Myrica cordifolia L., PI 300032 (696) and Osteospermum moniliferum L., PI 300033 (695). Other accessions worthy of consideration for use in sand stabilization include the stoloniferous perennial grasses Hemarthria altissima (Poir.) Stapf & Hubb., PI 299993 (230) and Pennisetum clandestinum Hochst. ex Chiov., kikuyugrass, PI 300082 (495). Kikuyugrass was seen growing in many different rainfall belts at altitudes from near sea level to 4,000 feet. It serves as an effective sand stabilizer near the ocean under the influence of salt spray.

Outiniqua Agricultural Research Station

A brief visit was made to this station located on the coastal plain just south of George, C.P. Agronomic investigations at this research station include field studies of forage grasses and legumes. Considerable work is underway involving the seemingly endless search for compatible grass-legume combinations adapted to local conditions. Clovers are being utilized to a considerable extent in this work.

Stellenbosch University

This university located in the city of the same name serves the Winter Rainfall Region of the Cape Province. Arrangements were made through conferences with the staff to obtain accessions of lupines for trials in the United States. Various contacts were made with individuals of the Agronomy Department of the University which may prove to be mutually beneficial in future exchanges of information and plant materials.

The climate of the southern coast of the Cape Province is somewhat comparable to that of the Mediterranean. This area literally abounds with a profusion of wild flowers, certain species of which are protected, as they should be, by strictly enforced laws. The beautiful flowering shrubs belonging in the indigenous Proteaceae family are of world renown as is the orchidist's pride, indigenous to Table Mountain, Disa uniflora Berg. The national flower of the Republic of South Africa is Protea cynaroides L. Proteas were observed along the southern coast from Humansdorp to Cape Town. Mention should be made of the Protea collection being established by the Botanical Research Institute at a new location for the National Arboretum near Pretoria. This collection forms an

integral part of the more inclusive collection of all wild species which are indigenous to the country.

Species of Gladiolus and Watsonia of the Iridaceae family are widespread throughout South Africa being particularly conspicuous in the southern Cape Province. Seeds and corms of these flower garden ornamentals were collected from the various municipal and national botanic gardens visited.

The botanic gardens, parks and other public grounds found in the towns and cities throughout the country are strikingly beautiful and impressive. In the first place they are always meticulously maintained in an excellent condition and secondly, they usually contain a myriad of indigenous and exotic species most of which are labeled for the benefit of all to enjoy. The national and civic pride expressed by South Africans in their taking advantage of the association of favorable climate and a highly variable indigenous flora result in botanic gardens and public parks in which they are justifiably proud.

Kirstenbosch Botanic Gardens

This botanic garden located at the base of fabled Table Mountain opposite the city of Cape Town has a worldwide reputation. Information concerning cultural practices for certain orchids and accessions of Gladiolus and Watsonia were obtained by a visit to this institution.

DESCRIPTION AND DISTRIBUTION OF SPECIES

The purpose of this section is that of (1) pointing out the easily discernable salient botanical characteristics associated with each species which have corresponding agronomic significance and (2) remarking about the distribution pattern of species within the collection area. A brief description of the habitat is given for each accession in the "ENUMERATION OF INTRODUCTIONS."

It is quite likely that some duplication is represented in this collection for two reasons. Initially there is undoubtedly some duplication present, particularly for certain species in the collection held by the Rietondale Research Station and from which many accessions were obtained. Secondly, some accessions collected in the field came from identical locations as those obtained from the Rietondale collection. Certain species with established agricultural value and which otherwise exhibited desirable agronomic characteristics were collected in number in order to insure their survival. Undoubtedly the duplication will become a moot point in time as the collection is evaluated in this country.

The distribution pattern of certain selected species of particular interest and significance was plotted and is shown in Figures 2-9. The distribution pattern plotted includes (1) those accessions collected from the field and (2) those collected from the Rietondale Research Station with established origins. From this it may be seen that those accessions whose origin lies outside South Africa are indicated as coming from the Rietondale Research Station. In other words the distribution pattern shown indicates collections made in South Africa and therefore is not intended to indicate the world-wide distribution of the species.

It seems logical to consider the most important section of the Eu Digitaria first, Erianthae. The species are presented in alphabetic order within a section for convenience.

Digitaria argyrograpta (Nees) Stapf

The much branched culms of this rhizomatous, perennial bunchgrass are erect or somewhat geniculate at the base. It is characterized by having knotty rhizomes which creep on occasion. Some forms from arid regions are reported to possess slender, straggling stolons. The plants attain a height of 2 feet and the contiguous form of the inflorescence further characterizes the species. It is reported from the southern, southeastern and northern Cape Province, the Orange Free State and occasionally from the Transvaal. All accessions of this species were collected in the 13-20 inch rainfall belt of the southeastern Cape Province. This species is not of any economic value in South Africa nor is it planted there to my knowledge.

Digitaria decumbens Stent

There is a tendency throughout South Africa to associate place names with certain collections, accessions or species. This custom is followed regardless of the species or location concerned. The place name may refer to a village, town, city, or other political subdivision such as District, the latter being a political subdivision within a Province and which is loosely analogous to our counties. Place names refer on occasion to general areas; e.g., "Coastal type" guineagrass, Panicum maximum Jacq. It is somewhat confusing when the same place name is used to describe more than one species or collection; e.g., "Thabazimbi strain" has been used to refer to guineagrass and to Digitaria smutsii Stent collected near the town of the same name in north-western Transvaal. Similarly, the name "pangolagrass," given to one introduction of Digitaria decumbens Stent, collected in the eastern Transvaal, was derived from the nearby Pongola River which acts as a partial border separating Transvaal and Natal. This species is known as "Nelspruit" or Lowveldt fingergrass" throughout South Africa.

This procumbent stoloniferous perennial is sterile for all practical purposes. It is generally considered to be a natural interspecific hybrid whose putative parents are unknown. The much branched stolons root and shoot from the nodes. The inflorescence usually consists of two whorls of racemes borne on a rather elongated peduncle. Although Chippindall considers it to be a botanical variety of D. pentzii Stent she treats it as having species status in The Grasses and Pastures of South Africa. The clone of this species best known in this country and referred to above is characterized as having soft, hairy foliage and dark green leaves.

The eastern Transvaal is considered to be the center of origin of D. decumbens Stent. The species is described from a plant collected in the Nelspruit District of the eastern Transvaal. Subsequent collections have been reported from the Piet Retief District of the Transvaal and from the Ngwavuma and Ubombo Districts of Zululand.

Table 1 shows that six of the twelve accessions of this species were collected from the wild whereas the others came from various research stations. Figure 2 indicates that the accessions collected in the field all came from the same general area described above thus suggesting the comparatively restricted distribution of this species. Due to the established agricultural value of this species in this country as elsewhere each of the accessions collected will be treated separately. Records on file at Rietondale Research Station indicate that the "Kalahari" is the source of PI 299597 (105). Admittedly this is a nebulous reference to source, nevertheless it is all the information available. The terms used in describing stem diameter given in the "ENUMERATION OF INTRODUCTIONS," were derived from comparative visual estimates based on the range of stem size observed within a species. Introductions within a species having stems of largest diameter are referred to as "coarse," those of intermediate diameter as "medium coarse" and those of least diameter as "fine." There is no record of source for PI 299599 (127) collected at Rietondale which is characterized by having blue-green foliage. The Rietondale record shows that PI 299598 (106) came from Bechuanaland. The origin of PI 299600 (173), collected at Rietondale, is Belfast in eastcentral Transvaal. A good ground cover was observed in the plot of PI 299601 (210) collected at Rietondale; the origin of this accession is eastern Transvaal between Nelspruit and White River. A glabrous form, PI 299603 (317), was collected from the Lowveld Research Station at Barberton, Transvaal. This clone is best characterized as having short racemes and producing few stolons with glabrous foliage; the small stems are rather brittle. The record indicated that this clone came from the Rietondale Research Station at an earlier date however a check with the latter station failed to reveal any additional source information.

Based on field observations PI 299602 (316), collected on sandy

soil near the Crocodile River at Alkmaar, Transvaal, is perhaps the best accession of this species collected. The fine-stem plants produce long, branched stolons which form an excellent ground cover thus affording good weed competition. The soft foliage is about a foot high and light green in color. This clone resembles PI 111110 in appearance very closely.

Another accession, PI 299604 (324), having few stolons and hairy foliage was collected near the Kaap River at Tonetti, Transvaal. It was found on level terrain, growing in partial shade on a reddish sandy clay in an Acacia - Panicum association in a 20-inch rainfall belt. The plants of PI 299605 (330) collected nearby at Hectorspruit were found growing in conditions very similar to those described for the previous accession, PI 299604 (324). These two accessions appear to be very similar in outward appearance. Plants of PI 299605 (330) did not form a ground cover, probably due to the lack of moisture.

The remaining three accessions were collected in northern Natal. Two accessions, PI 299606 (458) and PI 299607 (459), were collected in sandy soil on the bank of the Pongola River in the Ngotshe District. The clone PI 299606 (458) produces few stolons which did not form a complete ground cover. The stolons are hairy and somewhat glaucous. The fine stems have a soft texture and the spikelets have ridges of hairs. As this accession was not positively identified in the field at the time of collection PI 299607 (459) consists of the "seeds" of PI 299606 (458). The stoloniferous perennial PI 299608 (472) was found in the coastal plain of the Pongola River in the Ngwavuma District, that nebulous area otherwise known by the exotic sounding name "Tongaland." This accession was growing in partial shade of thick shrub in pure white sand. The precipitation in this area is about 21 inches per annum. The hairy stems are fine and soft in texture; the foliage averages six inches in height. The plants did not form a ground cover.

Herbarium specimens of this controversial species were examined in the following herbaria: National Herbarium, Botanical Research Institute, Pretoria, the Natal University Herbarium, Pietermaritzburg and the Hluhluwe Game Reserve Herbarium. Examination of other herbaria failed to reveal any additional specimens of D. decumbens Stent. Mr. C. J. Ward's specimen No. 2170, on deposit in the Hluhluwe Game Reserve Herbarium, was collected from sandy soil at an elevation of 750 feet. This game reserve is located in the Hlabisa District of Natal. The specimen examined at the Natal University Herbarium appeared to be similar to pangolagrass, PI 111110 as regards hirsuteness however the inflorescence and stem size are appreciably smaller than that for this clone. Based on collections and observations made on herbarium specimens in

South Africa there appears to be considerable genetic variation within the species despite its comparatively restricted distribution. The utilization of this species in toto will remain that of direct clonal increase per se until such time as the genetic barriers of incompatibility are overcome. This species is not of economic importance in South Africa.

Digitaria eriantha Steud.

This perennial species is widely distributed in South Africa (Fig. 3). It was found to be more variable than that described in the literature, particularly concerning the presence or absence of rhizomes, stolons, or their combinations. More frequently the plants have a strong, short, creeping rhizome. Some texts describe the plants as being densely tufted attaining a height of three feet with few branches. The 3-9 racemes are digitately arranged on a short axis. The lowest leaf sheaths are hairy, otherwise the leaves are rather glabrous. Although the type form is described as a densely tufted plant which does not produce stolons stoloniferous forms were found; e.g., PI 299624 (167) and PI 299631 (229). Rhizomatous bunch types possessing a few stolons were collected, PI 299615 (108), as were tufted forms with neither rhizomes nor stolons; e.g., PI 299623 (165) and PI 299633 (606). As the variable growth habit observed is not described in the literature it may cast suspect on the validity of the taxonomic identity of some of the clones reported herein. The intraspecific variation, on the other hand, may be the result of its widespread distribution coupled with its intra- and interfertility relationships growing in association with other species. It is claimed to be easily confused with D. argyrograpta (Nees) Stapf and D. milaniana (Rendle) Stapf, within the Erianthae.

Although D. eriantha Steud. is not considered as an economically important grass in South Africa it possesses certain agronomic characteristics which are highly desirable. It is adapted to a wide range of soil and moisture conditions and it is an excellent grass for erosion control. Its drought tolerance is indicated by its presence in the 10-20 inch rainfall region of the Cape Province called the marginal Karroo; see PI 299632-6. Two accessions, PI 299635-6, were collected from an area which is subject to severe wind erosion.

Digitaria geniculata Stent

This loosely tufted perennial is characterized as being rhizomatous but without stolons. It differs from typical D. eriantha Steud. in having the culms more robust near the base, many-noded and usually much branched. Its unusual and somewhat restricted distribution suggest that its taxa may be somewhat lower than that of species. It is recorded from four widely separated districts in the Cape

Province and from one site in the Orange Free State. To these may be added the collections made in Humansdorp, Mosselbaai and Peddie Districts of the Cape Province. Three accessions of this species are interesting inasmuch as field notes describe the accession PI 299639 (629) as being stoloniferous, PI 299640 (679) as a rhizomatous bunchgrass, and PI 299641 (690) as a perennial bunchgrass with no mention of the presence of rhizomes or stolons.

Digitaria macroglossa Henr.

This robust densely tufted perennial has erect, 3-4 noded, stout culms, with shoots from the lower nodes. The plants are strongly rhizomatous and may be 5 feet high; they often form large clumps. The leaf sheaths are slightly hairy otherwise the leaves are nearly glabrous with blades almost one-third inch wide near the base. The inflorescence consists of 7-10 racemes, 6-8 inches in length. Although it may be confused with its close relative, D. smutsii Stent, which is also a tufted rhizomatous perennial, the culms and rhizomes of D. macroglossa Henr. are usually more robust.

The distribution of this variable species is widespread in South Africa. It is reported from the northern Transvaal, Natal, Swaziland, Zululand and the coastal regions of the Cape Province. Figure 4 indicates that it was collected from the coastal areas of Natal and Cape Province. One accession, PI 299648 (488), was found growing in pure sand on the foredunes near sea level in Zululand where the plants formed large clumps and did an excellent job of stabilizing the moving sand. At this site the plants were subject to wind damage and salt spray. This species was collected from soils ranging from pure sand to heavy clays at elevations from sea level to 1,000 feet, in rainfall belts of 20-30 inches per annum. This species appears to be particularly adapted to poor soils in 20-30 inch rainfall belts.

Digitaria macroglossa var. prostrata (Stent) Henr.

The main difference between this variety and typical D. macroglossa Henr. is that the former is characterized as a prostrate stoloniferous form. One accession, PI 299654 (683) collected on the southeastern coast of the Cape Province, has both rhizomes and stolons. This variety is reported from the coastal region of the Cape Province and from the Vryheid District of Natal. To this may be added PI 299653 (423), collected in the Weenan District. This clone warrants mention as a possible source of drought resistant germ plasm, particularly provided this character is associated with the stoloniferous growth habit. This variety may be confused with D. milaniana (Rendle) Stapf due to similarity of growth habit although the distribution range of the two species does not overlap.

Digitaria milanjiana (Rendle) Stapf

Although this species is indigenous to and distributed in Tropical Africa it appears to be well adapted in certain locations in South Africa. It is a loosely tufted caespitose perennial with slender rhizomes and long stolons. The plants may be erect or semidecumbent, up to 2 feet high. Some accessions were obtained which appeared to be typical bunchgrasses without either rhizomes or stolons. The inflorescence consists of up to 15 sessile racemes, digitate or subwhorled, 3-4 inches long. In the absence of the knowledge of stolons it might be identified erroneously as D. eriantha Steud. Due to the presence of stolons it similarly could be misidentified as D. macroglossa var. prostrata (Stent) Henr. The typical bunch types are occasionally confused with D. smutsii Stent. This variable species is named for Mt. Mlanje in Nyasaland.

The presence or absence of rhizomes and stolons are important diagnostic characteristics which are quite often used in differentiating Digitaria species. These characters are ordinarily easily discernable from examination of plants in the field however such is not always the case. For those species whose differentiation is based largely on these attributes it becomes all the more important to insure that all plant parts are included in the herbarium specimen; this unfortunately, is not always necessarily the case. Complete and accurate field notes compensate in part at least for the absence of a complete herbarium specimen although they should never be considered as a substitute for a good specimen. This plea is aimed toward the collector on the one hand to make every effort necessary in order to obtain a complete herbarium specimen and equally to the botanist on the other hand to employ ingenuity in the use of all known information in attempts at taxonomic classification.

The number of accessions collected, 49, of D. milanjiana (Rendle) Stapf reflects to some degree my opinion of the potential agricultural value of this variable species. The origin of accessions collected at Rietondale Research Station included Bechuanaland, Kenya, Mozambique, Nyasaland, Tanganyika and Natal and Transvaal in South Africa. Only three accessions, all from the northern Transvaal, were collected from the wild; they include the stoloniferous forms, PI 299700 (276), 299701 (279) and the rhizomatous form PI 299702 (287).

Digitaria pentzii Stent

This species is widely distributed in South Africa being reported from Cape Province, Natal, Orange Free State and Transvaal. Collections made at the Rietondale Research Station indicate that it also occurs in Bechuanaland, Mozambique and Southern Rhodesia. It includes strains that are among the best known pasture and

erosion control grasses in South Africa.

The densely tufted perennial is strongly stoloniferous with numerous runners shooting at all the nodes and rooting from some of them. The flowering culms are erect or somewhat geniculate at the base. The inflorescence consists of 9-14 racemes borne digitately or subwhorled along a short axis. The leaf sheaths and leaf blades vary in hairiness. Chippindall believes the species to be polymorphous comprising several groups of a lower taxon. It is referred to as "Woolly Fingergrass" throughout South Africa and, on occasion, may be confused with D. setivalva Stent. Considerable variation in the number of stolons produced was found between clones.

Figure 5 indicates the concentration of this species in the eastern Transvaal and along the coastal regions of Cape Province and Natal. Its widespread adaptation and distribution coupled with the high esteem with which it is held in South Africa suggest that D. pentzii Stent contains germ plasm of comparatively high potential value. This is borne out by the results obtained through the evaluation of previous introductions. The two species, D. decumbens Stent and D. pentzii Stent appear to be equally adapted to similar soil and moisture conditions as they were found growing in association. Although the latter species has a wider distribution range than that of the former their distribution ranges overlap. Woolly Fingergrass, D. pentzii Stent, has the added genetic advantage of containing more diversity in its germ plasm and the capability of propagation by seeds which is an important economic advantage over that of pangolagrass. The assumption may be made from its occurrence in southeastern Cape Province that collections from this area may contain clones of value as cold tolerant types. All forms of this species do not produce viable seeds in sufficient quantity for sexual propagation.

Digitaria pentzii var. stolonifera (Stapf) Henr.

This variety differs from D. pentzii Stent in having smaller spikelets and shorter leaves. The variety is based on plants from the northern Transvaal. Plants of this variety are the smallest and most slender of the forms of D. pentzii Stent. The accessions of this variety included those collected from eastern Natal.

Digitaria polevansii Stent

This species is reported from Bechuanaland and the Cape Province in South Africa. It resembles in many respects some of the more robust forms of D. pentzii Stent. The presence of rhizomes and characteristically swollen culm bases consisting of bulbous protuberances covered with densely hairy scales are criteria by which it is differentiated from D. pentzii Stent. The thick, knotty, much branched and woody rhizomes occur immediately below

the swollen culm bases. The whole basal portion of the plant is yellowish and hairy which is helpful in differentiating this species from other species with similar growth habit; i.e., D. argyrograpta (Nees) Stapf and D. polyphylla Henr. The erect culms may be 3 feet high containing few basal leaves, most of which wither rapidly. The leaf blades vary in length and may be more than a foot long. The inflorescence consists of 4-12 racemes, each 3-5 inches long digitately arranged on a short central axis. The stout stolons may be 15-20 feet long, rooting and shooting at the nodes producing tufts of bulbous based shoots. The vegetative material of those cultivated accessions collected consisted of stolons whereas plants of the one accession found growing in the wild formed large clumps and were rhizomatous.

Digitaria polyphylla Henr.

This perennial has knotty, shortly creeping rhizomes and long, straggling stolons that root at a few nodes. The culms usually branch from the middle and upper nodes and may be 1-2 feet high. The leaves are glabrous or loosely hairy, about six inches long and one-fifth inch wide when expanded. The digitately arranged racemes, usually consisting of 4-6 or, more rarely, 3 or 7, are 1-3 inches long. Its habitat of asbestos, sandy and stony sites aid in characterizing the species. The knotty rhizomes and congested culm bases resemble those of D. argyrograpta (Nees) Stapf and D. polevansii Stent. The lower portion of the culm is straight and unbranched with leaves that have reduced blades. The culms branch near the top producing a bushy tuft almost leafless at the base. The foliage is either light green or glaucous. The plants form few stolons which are usually long and straggling, rooting and shooting from only a few of its nodes.

The reported distribution of this species is restricted to the eastern Cape Province. It is not of economic importance in South Africa.

Digitaria smutsii Stent

This tall, perennial bunchgrass was found to be more variable than that described in the literature. Despite the fact that stolons are not referred to in the description of this economically important species stoloniferous forms were included in this collection. This robust, erect grass is 3-5 feet high. The leaves vary in length up to 2 feet; the leaf blades are usually glabrous and the sheaths vary in hairiness. The inflorescence consists of 4-10 racemes arranged digitately or often whorled along a central axis. The stolons when present are usually few in number, long and straggling. The less crowded leaves near the base of the plants and their conspicuously larger size aid in differentiating this species from D. eriantha Steud. The more

uniform distribution of the leaves and the exceptionally wide leaf blades are characteristic of D. milaniana (Rendle) Stapf but that species has the nerves of the lower lemma scabrid from minute spines. This species may also be confused with D. macroglossa Henr. which has a less conspicuous ligule and different range of distribution; the latter species was not collected from the Transvaal. The culms and rhizomes of D. macroglossa Henr. are usually larger and more robust than those of D. smutsii Stent. There was considerable variation in seed production, stem size and vigor between the various clones collected.

Based on its production of seeds in sufficient quantity for propagation which make establishment both easy and cheap D. smutsii Stent is of economic importance in South Africa. It is useful for grazing and for hay, particularly in 20 - 30 inch rainfall belts. This species is grown under irrigation and dryland conditions in South Africa. All clones of D. smutsii Stent, like those of D. pentzii Stent, do not produce viable seeds in sufficient quantity for propagation. Viable seed production should be of paramount importance in the evaluation of this species.

This species has a widespread distribution in South Africa being reported from all Provinces. In addition, it is reported from Bechuanaland and from South West Africa. Although most of the accessions were collected from cultivated plots Figure 6 indicates that collections were made from the wild in Natal and the Transvaal. It would appear that heavy seed-producing types having stoloniferous growth habit may be derived from this collection. This possibility coupled with its established value in South Africa make D. smutsii Stent one of the more promising species collected.

Digitaria valida Stent

Although this stoloniferous perennial is perhaps more common to the Transvaal it is reported from the Cape Province, Natal and Orange Free State. Its distribution based on this collection is shown in Figure 7. This species is also reported from Bechuanaland, Kenya, Mozambique and Tanganyika.

This robust perennial has glabrous flowering culms, erect or somewhat geniculate, 2 - 4 feet high. The culms usually contain 3 - 4 nodes; the lower leaf sheaths are hairy, densely villous at the base. The glabrous leaves may be flat or slightly folded, narrow, 10 - 20 inches long. The inflorescence consists of 9 - 14 racemes arranged digitately or subwhorled along a short axis. The internodes of the stolons have long spreading hairs arising from tubercles. Chippindall considers D. valida Stent to be only a robust form of D. pentzii Stent.

"Giant pangolagrass," D. valida Stent is an important species in the western hemisphere; this is attested by the literature citing its merits. Limited plantings of giant pangolagrass, derived from introductions, are found in Hawaii and the Caribbean; in addition it is of economic importance in certain areas of Central America. Giant pangolagrass is adapted to soils, rainfall belts and other environmental factors very similar to those of D. decumbens Stent. The Rietondale Research Station collection of this species contained types which are outstanding from the standpoint of desirable agronomic characteristics. Many clones are outstanding in their ground covering ability which may be described by the more definitive terms aggressiveness and competitiveness. Two accessions stand out with regard to ground cover and thick sod formation; they are PI 299854 (123), a selection made at the Potchefstroom Agricultural College and PI 301143 (122). Cold tolerance may be present in an accession, PI 299884 (369) collected at 3,300 feet elevation in Natal, a site subject to light frosts. Field collections include several accessions from approximately 20-inch rainfall belts indicating its potentiality as a drought tolerant highly productive grass.

The records of the Bathurst Research Station indicate PI 299889 (642) to be D. valida Stent. This accession produces a good ground cover and is a heavy seed producer; examination of the root system indicates the presence of rhizomes. This information leads one to suspect the validity of its taxonomic identification. Although the viability of the seeds of this species is doubtful nevertheless several accessions were obtained as seeds; e.g., PI 299881 (250), 299882 (331) and PI 299890 (643).

Based on its known performance in the western hemisphere and on observations made in South Africa it is my opinion that this species along with D. milaniana (Rendle) Stapf offers the greatest possibilities of direct utilization.

Henrard's separation of D. milaniana subsp. eylesiana Henr. and D. setivalva Stent from the true Erianthae is based on the type pubescence present on the margins of the sterile lemma. The margins of the sterile lemma, in contrast to those of true Erianthae, are more or less softly hairy; furthermore they are always provided with a row of stiff, smooth, somewhat curved bristles. The nervation of the sterile lemma appears to be only 3-nerved.

The species of D. milaniana subsp. eylesiana Henr. and D. setivalva Stent belong in the subsection Setulosae.

Digitaria milaniana subsp. eylesiana Henr.

This subspecies, like that of D. milaniana (Rendle) Stapf, is

indigenous to Tropical Africa. The collection at the Rietondale Research Station includes forms from Bechuanaland, Kenya, Nyasaland and from Natal and the Transvaal in South Africa. Extensive research failed to reveal the origin of certain collections made from the Rietondale Research Station; e.g., PI 299712-16. It is felt that the place names are either misspelled or that they are no longer in use.

The absence of rhizomes in this subspecies, which are present in the typical species, serve as one easily discernable means whereby they may be separated. The plants of D. milaniana subsp. eylesiana Henr. are usually less robust than those of the typical species; otherwise it is extremely difficult to separate the two forms based on field observation. Chippindall believes that the subspecies should be placed in D. setivalva Stent based on the similarity of botanical characteristics.

All accessions of this subspecies were obtained in vegetative form from the Rietondale Research Station. Among the accessions obtained PI 299724 (91) is outstanding for its ground covering ability, aggressiveness and competitiveness in addition to its production capacity.

Digitaria setivalva Stent

A loosely tufted perennial with long stolons and occasionally with a shortly creeping rhizome. The stolons which have glabrous internodes root at most of the nodes. The simple or branched flowering culms are erect or geniculate, 1-3 feet high. The leaves are glabrous or sparingly hirsute, bright or dark green when young, reddish brown when old. The leaf sheaths are glabrous or sparingly hirsute. The inflorescence consists of 5-11 yellowish-green racemes about 6-8 inches long, digitately arranged along a central axis; occasionally some additional solitary racemes are present.

It is somewhat surprising that Henrard omits mention of the occurrence of D. setivalva Stent outside the Transvaal followed by Chippindall's reported distribution in Bechuanaland and the Transvaal. The collection at the Rietondale Research Station includes clones which originated in Kenya, Northern Rhodesia, Southern Rhodesia, Mozambique and Bechuanaland. The clones from Natal, see Figure 8, may be added to these.

With the possible exception of D. diversinervis (Nees) Stapf and D. swazilandensis Stent in Sanguinales the other species included in this collection are of more academic interest than those of the Erianthae. This is not intended to imply that this germ plasm is of less value than that contained in forms having direct agricultural application but to point out its differential utilization in basic research aimed toward overall forage improvement. The perennial species belonging in the Cirripilae will be

considered next.

Digitaria chevalieri Stapf

This stoloniferous, rhizomatous perennial is reported from Tropical Africa. Chippindall does not mention it in her work inasmuch as it is not indigenous in South Africa. This species is described in Henrard's monograph and the one accession included in this collection originated in Kenya.

Digitaria gazensis Rendle

This rhizomatous perennial is reported from Tropical Africa. This species, like that of D. chevalieri Stapf, is not indigenous to South Africa although it is unlike that species in its absence of stolons.

The simple flowering culms are 10-20 inches high. The leaves may be short or rather long, the blades are glabrous or sparingly hairy. Inflorescence consists of 2-3, up to 7, racemes, usually 2-6 inches long, arranged subdigitately along a short axis. The hairy "fruit" is dark purplish to black.

Digitaria debilis (Desf.) Willd.

This annual species is unique in the Debiles.

Its distribution is widespread and includes Italy, Portugal, Tropical Africa, Mozambique, Madagascar as well as all provinces in South Africa.

The fine stemmed flowering culms are 2-3 feet high, mostly branched, decumbent at the base and rooting from the basal nodes. The inflorescence is composed of 5-12 bright green, purple tinged, racemes, 2-5 inches long. This species is easily recognized by the long, pointed upper glume extending beyond the rest of the spikelet and by the purple tinge of the racemes. The foliage is soft in texture and usually bright green.

Digitaria tricholaenoides Stapf

Rhizomatous perennial with stout creeping rhizomes. The rhizomes are covered with old leaf sheaths. Culms simple, erect, to 24 inches high. Leaf sheaths densely hairy, the blades usually loosely hairy. Inflorescence consists of 2-8 racemes, 2-5 inches long, arranged subdigitately.

The distribution of this species, belonging in the Tricholaenoides, overlaps that for D. macroglossa Henr. in South Africa. It

resembles the latter in general appearance. D. tricholaenoides Stapf is reported from the eastern Cape Province, Basutoland, Natal, Orange Free State, Transvaal and Swaziland. It is not of economic importance in South Africa where it is found growing on "sourveld" grassland. Its occurrence at altitudes beyond 5,000 feet in areas subject to frost suggest its cold tolerant potential.

Digitaria diversinervis (Nees) Stapf

Two species included in the Sanguinales are of agronomic and economic importance in South Africa. These include the fine stemmed stoloniferous perennial D. diversinervis (Nees) Stapf, called "Richmondgrass" in South Africa and the more widely known "Swaziland Fingergrass," D. swazilandensis Stent.

The simple culms of D. diversinervis (Nees) Stapf ascend from a loosely branched rooting base and may be 24 inches high. The stoloniferous plants form a good ground cover. The leaf blades are mostly glabrous or sparingly hairy, 1-4 inches long, spreading or reflexed. Inflorescence consists of 2-3 racemes, 1-2 inches long. The foliage is usually light green.

D. diversinervis (Nees) Stapf is indigenous to the eastern Transvaal, Natal and Zululand. Its growth habit and outstanding tolerance to shade make Richmondgrass popular as a lawngrass in frost-free areas. Richmondgrass occurs along stream banks in sandy soils in shaded sites. Its use as an ornamental grass overshadows its potential as a forage species probably due to its low productivity. When used as a lawngrass it does not produce the undesirable stemmy appearance following cutting at too infrequent intervals or, on occasion, when cut too low. Richmondgrass grows equally well in light to deep shade making it ideal ground cover for difficult sites. The color of the foliage is usually dark green.

Digitaria swazilandensis Stent

Swaziland Fingergrass is widely known and distributed throughout South Africa where it is used extensively as a lawngrass. This species possesses characteristics which render it useful as a dual-purpose grass; *i.e.*, lawn and forage. Its vigor, drought tolerance, low height, dark green color, stoloniferous growth habit and ability to thrive on poor soils all contribute to making Swaziland Fingergrass a popular lawngrass. In addition, it exhibits some degree of shade tolerance. It is planted on sports fields, lawns, public grounds and airfields where a low-growing ground cover is desired.

D. swazilandensis Stent is an excellent grazing grass; the comparative low yields are its chief disadvantage when used as a

forage grass. Swaziland Fingergrass is a vigorous grower and does well on relatively poor soils. Its palatability is demonstrated by free-ranging wild animals grazing it intensively in preference to other species. One accession, PI 299836 (203) is reported to be adapted to acid soils.

It is a prostrate, stoloniferous perennial, 8-20 inches high. Stolons strong, short, rooting and shooting at all nodes forming good ground cover. The branched culms are prostrate with many nodes. The leaves are loosely and finely hairy or glabrous and not over 3 inches long. Inflorescence consists of 2 or 3 racemes, in pairs or three's, 1-3 inches long. The plants form seedheads profusely. The growth habit, foliage and inflorescence of D. diversinervis (Nees) Stapf and D. swazilandensis Stent are very similar; the former species usually has broader leaves and is restricted to shaded sites.

D. swazilandensis Stent is indigenous to Swaziland. It occurs in the eastern Transvaal and coastal regions of Natal and Zululand; see Fig. 9. Unsuccessful attempts were made to locate so-called lawn types as differentiated from forage types. Insofar as I was able to discern the species includes only one botanical form.

Digitaria longiflora (Retz.) Pers.

This prostrate perennial has numerous, long, slender, usually branching stolons. Simple culms 4-12 inches high, two or three sometimes arising at each node. Leaves glabrous or hairy, 2-4 inches long. Inflorescence of two or three racemes, in pairs or three's very slender and almost always extending outward. This grass resembles some forms of Cynodon dactylon (L.) Pers. in growth habit and inflorescence form with which it frequently found associated. The outstanding characteristic helpful in differentiating it from other Digitaria species is that of the inflorescence usually containing only two slender terminal racemes.

It is frequently abundant on poor soils along roadsides and in old cultivated fields or waste places. The fine stems and low growth make this species ideal as a lawngrass. It often occurs as a weed in cultivated fields. It thrives in sandy soils in wet or shaded sites, frequently in disturbed areas.

D. longiflora (Retz.) Pers. belongs in the Verrucipilae and is widely distributed in tropical regions. It is reported from the eastern Transvaal, Natal, Swaziland and Zululand. Aside from its possible value to the researcher in basic research its direct value is probably that of a lawngrass.

Digitaria ternata (Hochst. ex A. Rich.) Stapf

This annual species belongs in the Clavipilae and is widely distributed in tropical regions. The plants form small clumps; culms to 20 inches high. The culms are usually simple, occasionally branching from the lowest node. The short hairy or glabrous leaves are usually borne near the base of the plant. Inflorescence consists of 2-7 racemes, subdigitate, 2-5 inches long. This species is considered a weed in South Africa where it grows in damp sites, often in disturbed areas. It is reported from all Provinces in the Republic.

Digitaria scalarum (Schweinf.) Chiov.

Rhizomatous perennial with simple culms 8-16 inches high. Culms usually branched near the base. Leaves loosely to fairly densely hairy, about one-third inch wide when expanded. The inflorescence consists of 2-12 racemes about 4 inches long, arranged subdigitately on a central axis that sometimes exceeds some of them in length. The racemes may be divided and compound on the lower half of the inflorescence. The aggressive plants have fine stems and form a good ground cover. This species is indigenous to North and East Africa. It has been introduced into South Africa where it has become a weed in cultivated lands. Henrard relegates this species to a variety in D. vestita Fig. & De Not.; it belongs in the Glabratae.

One species, D. diagonalis (Nees) Stapf, belonging in the subgenus Setariopsis is included in the collection.

Digitaria diagonalis (Nees) Stapf

A robust perennial bunchgrass. Simple, stout culms may be 5 feet high, swollen and usually bulbous at the base. The plants are shallow-rooted, producing a thick sod at times. The leaves are usually glabrous with hairy leaf sheaths. Inflorescence consists of a panicle of numerous racemes borne solitary or whorled on a long central axis. The racemes may be dense or somewhat loose, unequal in length, often compound, especially in the lower half of the panicle. The upper floret may vary in color from light to almost black, usually pointed and extending beyond the lower lemma. The conspicuous white hairs below the spikelets further characterize the species as well as the inflorescence form.

This species occurs in open grassland on hillsides and in damp places. It is reported from southern Transvaal, Natal, Swaziland, Zululand and the eastern Cape Province. One accession, PI 299609 (286), came from a disturbed semi-shaded site along a railroad in northcentral Transvaal. This species is an excellent erosion control grass in that the plants often form a dense mat with almost complete ground cover.

ENUMERATION OF INTRODUCTIONS

ACACIA CYCLOPS A. Cunn ex Don

Leguminosae

299455. (675) Local name: Port Jackson willow.

Shrub, or small tree; whorled narrow leaves to 3" long, 1/3" wide; seed pods in clusters in leaf axils, curled when immature, 4-7 seeded, septate, flat, to 3" long, 1/2" wide; seeds small, flat, black, completely surrounded by orange aril. Used for dune stabilization. Potential weed. Dunes in Port Elizabeth, C.P., elev. 50'. Seeds.

299456. (692)

Shrub or small tree to 20' high. Potential weed. Dunes near mouth of Kaffirkuils River, Stilbaai, C.P. Seeds.

AGROPYRON DISTICHUM (Thunb.) Beauv.

Gramineae

299457. (664)

Rhizomatous perennial. Dunes near mouth of Sundays River, 30 mi. east of Port Elizabeth, C.P., elev. 17'. Used for dune stabilization. Seeds.

299458. (665)

Rhizomatous perennial. Steep dunes near mouth of Sundays River, C.P. Seeds.

299459. (695) Local name: Seawheat

Rhizomatous perennial. Forest Station, Stilbaai, C.P. Seeds.

AGROSTIS ERIANTHA Hack.

299460. (304)

Rhizomatous perennial; few basal leaves; inflorescence diffuse; seedheads to 18" high. Rocky soil in open grassland, Mt. Anderson, 10 mi. east of Lydenburg, Tvl., elev. 7,000'. Seeds.

AGROSTIS LACHNANTHA Nees

299461. (301) Bentgrass. Local name: South African bentgrass. Perennial bunchgrass forming small clumps; leaf height 12", head height 24". Open grassland, hardy rocky soil, Mt. Anderson, 7 mi. east of Lydenburg, Tvl., elev. 6,700'. Seeds.

ANDROPOGON APPENDICULATUS Nees

299462. (542) Bluestem

Weakly stoloniferous, leafy perennial. Good grazing grass. Elev. 4,200'. Annual rainfall 20". Seeds.

ANTHEPHORA PUBESCENS Nees

299463. (541)

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S.
Seeds.

299464. (549)

Palatable, perennial bunchgrass; leaf height 12". Level terrain, Hwy. N-8, 10 mi. northwest of Bloemfontein, O.F.S. Annual rainfall 19"; elev. 4,200'. Adapted to sandy soils in 10-20" rainfall belt. Seeds.

ANTHOSCHMIDTIA BULBOSA (Stapf) Peter

299465. (339) Local name: Kalahari sandquick.

Perennial bunchgrass; leaves few, to 15" high; seeds abundant. Drought tolerant. Along Naphe Road on level terrain in scrub timber, Kruger National Park. Annual rainfall 20", elev. 1,050'. Seeds.

299466. (555) Local name: Vaalgrass.

Perennial bunchgrass to 4" high. Drought tolerant. Open grassland, level terrain, shallow soil, quartz rock; 10 mi. west of Kimberley, C.P. on Hwy. S-5. Annual rainfall 15"; elev. 4,000'. Seeds.

ARACHIS HYPOGAEA L.

Leguminosae

299467. (361) Peanut.

Cultivated peanut with large 'Virginia Runner' type leaves; nuts in condensed small cluster near top of soil. All nuts remained on plant when pulled from wet soil. In cultivated field, red clay soil; 5 mi. east of Sabie, Tvl. Seeds.

299468. (471)

'Virginia Runner' type plant with nuts clustered near surface like Spanish type. All nuts remained on plants when pulled from soil. Cultivated field, level terrain, grey sandy soil; 2 mi. south of Jozini Dam on Pongola River, Natal. Seeds from two plants with white testa growing among plants with seeds of pink testa. Seeds.

299469. (478)

'Virginia Runner' plant type with Spanish fruiting habit. Cultivated field, grey sandy soil; 2 mi. south of Jozini Dam on Pongola River, Natal. Pink testa seed plants growing among white testa seed plants. Seeds.

299470. (538) 'Natal Common'

Glen Agricultural College, Glen, O.F.S. Annual rainfall 20"; elev. 4,200'. Seeds.

299471. (539) 'Mambelele'
 Glen Agricultural College, Glen, O.F.S. Annual rainfall 20";
 elev. 4,200'. Seeds.

ARACHIS SP.

299472. (241)
 Rhizomatous perennial. Rietondale Res. (Research) Sta.
 (Station) Pretoria, Tvl. No. B 61-165. Rhizomes.

299473. (242)
 Rhizomatous perennial; aggressive. Rietondale Res. Sta.
 Pretoria, Tvl. No. B 61-164. Rhizomes.

299474. (243)
 Rhizomatous perennial. Rietondale Res. Sta., Pretoria,
 Tvl. No. B 61-163. Rhizomes.

ARISTIDA CURVATA Nees

Gramineae

299475. (263) Threeawn grass. Local name: Stickgrass
 Annual bunchgrass; erect, to 24" high. Disturbed site on
 Nyl River bank, 47 mi. south of Pietersburg, Tvl. on Hwy.
 N-1. Annual rainfall 24"; elev. 4,700'. Seeds.

ARISTIDA DIFFUSA Trin.

299476. (570) Threeawn grass
 Perennial bunchgrass; leaf height 6", head height 20".
 Level terrain, open rangeland, clay loam soil. Disturbed
 site along Hwy. N-1, 5 mi. north of Middelburg, C.P.
 Annual rainfall 13", elev. 4,300'. Seeds.

ARISTIDA JUNCIFORMIS Trin. & Rupr.

299477. (424) Threeawn grass
 Perennial bunchgrass; wiry, forms clumps to 10" in
 diameter; leaf height 12", head height 24". Level rocky
 soil; disturbed site, 12 mi. north of Muden, Natal.
 Annual rainfall 21", elev. 2,000'. Seeds.

ARISTIDA OBTUSA Delile

299478. (578) Threeawn grass
 Perennial bunchgrass. Grootfontein Agricultural College,
 Middelburg, C.P. Seeds.

ARISTIDA VESTITA Thunb.

299479. (556) Threeawn grass
 Perennial bunchgrass; leaf height 6". Open, level rangeland;
 shallow rocky soil: 10 mi. west of Kimberley, C.P. on
 Hwy. S-5. Annual rainfall 15", elev. 4,000'. Seeds.

ASPARAGUS BURCHELLII Baker

Convallariaceae

299480. (667)

Semi-vine to 24" high; stems triacanthate at nodes; mature fruits black. Grazed hillside pasture; rocky clay soil; 5 mi. east of Uitenhage, C.P. Seeds.

ASPARAGUS LARICINUS Burchell

299481. (526) Larch asparagus. Local name: Wild asparagus

Semi-vine to 6' high; thorns short. Low, wet, shady site, level terrain; Glen Agricultural College, Glen, O.F.S.

Annual rainfall 20", elev. 4,200'. Seeds.

ASPARAGUS MULTIFLORUS Baker

299482. (611)

Semi-vine to 6' high; non-spiny; fruits green. Disturbed site in fence row; 5 mi. east of Bedford, C.P. on Adelaide road. Seeds.

ASPARAGUS RACEMOSUS Willd.

299483. (630)

Semi-erect plants to 18" high. Open pasture, rolling terrain, 50 mi. southwest of East London, C.P. Annual rainfall 25", elev. 500'. Seeds.

ASPARAGUS SPRENGERI Regel

299484. (678) Sprenger asparagus

Semi-viny plants to 6' high; spines short, curved; fruiting clusters arise at leaf petioles; mature fruits red. Sandy limestone soil, shaded site in woods along stream, Port Elizabeth, C.P. Seeds.

ASPARAGUS SP.

299485. (511-A)

Plants erect to 5' high; fruits red. Grown as ornamental near farm house 21 mi. southwest of Harrismith, O.F.S.

Mountainous terrain, 5,500'. Seeds.

299486. (568)

Semi-viny plants in large clumps to 6' high, with thorns; fruits bright red when mature, 0.12" in diameter. Open pasture, level terrain, 1 mi. east of Petrusburg, O.F.S. Annual rainfall 16", elev. 4,000'. Seeds.

299487. (666)

Semi-viny plants to 2' high; stems triacanthate at nodes; mature fruits black. Open pasture, rocky clay soil, 5 mi. east of Uitenhage, C.P. Seeds.

ATRIPLEX SEMIBACCATA R. Br.

Chenopodiaceae

299488. (596) Australian saltbush

Woody perennial, prostrate, palatable, crown spread 4';
 prolific seeder, fruits yellow. Mountain pasture, 26 mi.
 southwest of Cradock, C.P. Annual rainfall 17", elev.
 4,000'. Seeds.

299489. (597)

Woody perennial, prostrate, palatable, crown spread 4';
 prolific seeder, fruits red. Mountain pasture, 26 mi. south-
 west of Cradock, C.P. Annual rainfall 17", elev. 4,000'.
 Plants with red and yellow fruits growing together. Seeds.

BOTHRIOCHLOA INSCULPTA (Hochst.) A. Camus

Gramineae

299490. (334) Local name: Pinhold grass

Semi-erect perennial. Open pasture, dark brown clay loam.
 Komati River plain, 17 miles south of Komatipoort, Tvl.
 on Hwy. N-4. Seeds.

299491. (415)

Stoloniferous perennial, rooting at nodes; stems coarse; leaf
 height 6". Sandy clay wasteland; Mooi River valley, 8 mi.
 north of Muden, Natal. Annual rainfall 20", elev. 2,800'.
 Stolons.

BRACHIARIA BRIZANTHA (Hochst.) Stapf

299492. (234) Palisade signalgrass

Perennial bunchgrass; robust, drought tolerant. Plot 128,
 Rietondale Res. Sta., Pretoria. Originally from Uganda.
 Seeds.

299493. (235)

Perennial bunchgrass, robust; leafy, leaves broad; head
 height 36". Plot 126, Rietondale Res. Sta., Pretoria.

299494. (237)

Perennial bunchgrass; prolific seeder, head height 36".
 Plot 122, Rietondale Res. Sta., Pretoria. Originally from
 Rustenburg, Tvl. Seeds.

299495. (257) Local name: Breadgrass

Perennial bunchgrass; leafy; head height 48". Open
 grassland, sandy clay soil. Nyl River plain, 13 mi. north
 of Nylstroom, Tvl. on Hwy. N-1, elev. 4,500'. Seeds.

BRACHIARIA DEFLEXA (Schum.) C. E. Hubb. ex Robyns

299496. (281) Local name: False panicum

Annual bunchgrass; erect, leaf height 18". Waste grounds, red
 clay loam. Duiwelskloof, Tvl., elev. 2,750'. Seeds.

BRACHIARIA SERRATA (Thunb.) Stapf var. gossypina (A. Rich.) Stapf (507)

Rhizomatous perennial; prostrate, forms dense mat. Grazed pasture, shallow, grey, clay loam. Shannon Farm, 21 mi. southwest of Harrismith, O.F.S. Annual rainfall 32", elev. 6,000'. Stolons.

BRACHIARIA SP.

299497. (236)

Stoloniferous; leaf height 3". Plot 124, Rietondale Res. Sta., Pretoria. Originally from Zululand. Stolons.

299498. (238)

Stoloniferous; leaves broad, leaf height 3"; small seed heads. Plot 119, Rietondale Res. Sta., Pretoria. Originally from Swaziland. Stolons.

299499. (378) Local name: Tannergrass

Stoloniferous perennial; leaves broad, leaf height 12".

Used for erosion control on pond banks, stems float.

Estcourt Research Farm, Estcourt, Natal. Annual rainfall 29", elev. 3,800', not frost-free. Stolons.

BROMUS WILLDENOWII Kunth

299500. (492) Rescuegrass

Bunchgrass; leaf height 14"; head height 30". Disturbed site along road, dark grey sandy loam. Rolling terrain, 7 mi. east of Bethlehem, O.F.S. on Hwy. N-5. Annual rainfall 26", elev. 5,600'. Seeds.

CARISSA GRANDIFLORA (E. Mey.) DC.

Apocynaceae

(489) Natal plum

Shrub or small tree; branches with spines; fruit edible. Plants both cultivated and wild. Disturbed site along Hwy. N-14, 10 mi. north of Durban, Natal. Cuttings.

CASSIA DIDYMOBOTRYA Fres.

Leguminosae

299501. (685) Senna

Ornamental shrub to 20' high; leaves compound; flowers in clusters, bright yellow; pods flat, septate, to 5" long and 1" wide. Grounds of Wilderness Hotel, 8 mi. east of George, C.P. on Hwy. N-2. Annual rainfall 22", elev. 90'. Seeds.

CASSIA OCCIDENTALIS L.

299502. (457) Senna

Erect, branching shrub to 7' high. Sandy wasteland on bank of Pongola River, Natal. Annual rainfall 25", elev. 400'. Seeds.

299503. (465)

Erect, branching shrub to 6' high; heavy seeder. Edge of cultivated field, grey sandy soil; 2 mi. south of Jozini Dam on Pongola River, Natal. Seeds.

CENCHRUS CILIARIS L.

Gramineae

299504. (319) Buffelgrass, Local name: Blue buffalograss
Perennial bunchgrass; leafy, leaf height 24"; heavy seeder.
Level terrain, heavy black clay. Lowveld Research Station,
Barberton, Tvl. Elev. 2,300'. Seeds.

299505. (320) Local name: Blue buffalograss

Perennial bunchgrass; leafy, leaf height 24". Level terrain,
heavy black clay. Lowveld Research Station, Barberton, Tvl.
Elev. 2,300'. Seeds.

299506. (449)

Perennial bunchgrass; head height 26". Mkuze River plain,
level terrain, ungrazed pasture; 3 mi. north of Mkuze,
Natal on Hwy. N-14. Annual rainfall 24", elev. 500'. Seeds.

299507. (473)

Perennial bunchgrass; leaf height 12". Disturbed site,
level terrain, clay soil; 1 mi. southwest of Mkuze, Natal.
Seeds.

299508. (564)

Perennial bunchgrass, forms large clumps; leafy, leaf height
14". Disturbed site along railroad, shallow clay loam; 10
mi. south of Kimberley, C.P. Annual rainfall 16", elev.
4,000'. Seeds.

299509. (584)

Perennial bunchgrass; dark green; leaf height 24". Grootfontein Agricultural College, Middelburg, C.P. Seeds.

299510. (601)

Perennial bunchgrass, forms large clumps; leaf height 10".
Disturbed site, shallow rocky soil, 5 mi. south of Graaf-Reinet, C.P. on Pearston road. Annual rainfall 12", elev. 2,000'. Seeds.

299511. (644)

Perennial bunchgrass; leafy, leaf height 30", blue-green foliage. Reddish clay soil, Bathurst Agricultural Research Station, Bathurst, C.P. Originally from Molopo River. Annual rainfall 27", elev. 850'. Seeds.

299512. (645)

Perennial bunchgrass; leafy, leaf height 24". Reddish clay soil, Bathurst Agricultural Research Station, Bathurst, C.P. Originally from Kohla, C.P. Annual rainfall 27", elev. 850'. Seeds.

299513. (647)

Perennial bunchgrass. Disturbed site, clay loam soil, 10 mi. north of Bathurst, C.P. Seeds.

299514. (697)

Perennial bunchgrass; leaf height 18". Waste ground, Riversdale C.P. Annual rainfall 16", elev. 400'. Plants growing under irrigation. Seeds.

299515. (732)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Seeds.

299516. (733)

Perennial bunchgrass; Thabazimbi strain. Rietondale Res. Sta., Pretoria. Originally from Molopo. Seeds.

299517. (734)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from Molopo River, South West Africa. Seeds.

299518. (735)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from Cradock, C.P. Seeds.

299519. (736)

Perennial bunchgrass; erect, green foliage. Rietondale Res. Sta., Pretoria. Seeds.

299520. (737)

Perennial bunchgrass. Rietondale Res. Sta. No. B/61/176. Seeds.

299521. (738)

Perennial bunchgrass. Rietondale Res. Sta. No. B/61/178. Seeds.

299522. (739)

Perennial bunchgrass. Rietondale Res. Sta. No. B/61/170. Seeds.

299523. (740)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/174.
Seeds.
299524. (741)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/175.
Seeds.
299525. (742)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/177.
Seeds.
299526. (743)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/172.
Seeds.
299527. (744)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/171.
Seeds.
299528. (745)
Perennial bunchgrass. Rietondale Res. Sta. No. B/61/173.
Seeds.
299529. (746)
Perennial bunchgrass; Chipinga strain. Rietondale Res.
Sta., Pretoria. Seeds.
299530. (747)
Perennial bunchgrass; Biloela strain. Rietondale Res. Sta.,
Pretoria. Seeds.
299531. (748)
Perennial bunchgrass. Rietondale Res. Sta. No. U/57/217.
Seeds.
299532. (749)
Perennial bunchgrass. Rietondale Res. Sta. No. U/57/216.
Seeds.
299533. (754)
Perennial bunchgrass; blue-green foliage. Rietondale Res.
Sta., Pretoria. Originally from Marico, Tvl. Seeds.
299534. (755)
Perennial bunchgrass; green foliage. Rietondale Res. Sta.,
Pretoria. Originally from Rustenburg, Tvl.

299535. (756)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from Rustenburg, Tvl.

299536. (757)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from East Africa.

299537. (758)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from Roedtan, Tvl. Seeds.

299538. (759)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from Roedtan, Tvl. Seeds.

299539. (760)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from Merriman, C.P. Seeds.

299540. (761)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from East Africa. Seeds.

299541. (762)

Perennial bunchgrass; green foliage; large plants. Rietondale Res. Sta., Pretoria. Originally from Lyana, Kenya. Seeds.

299542. (763)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from Kenya.

299543. (764)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from West Messina, Tvl. Seeds.

299544. (765)

Perennial bunchgrass; green foliage. Rietondale Res. Sta., Pretoria. Originally from Witbank, Tvl. Seeds.

299545. (766)

Perennial bunchgrass; blue-green foliage. Rietondale Res. Sta., Pretoria. Originally from Vryburg, C.P. Seeds.

299546. (769)

Perennial bunchgrass; large plants; blue-green foliage. Rietondale Res. Sta., Pretoria. Seeds.

CHLORIS GAYANA Kunth

299547. (308) Rhodesgrass

Perennial; without stolons; head height 36". Citrus Research Station, Nelspruit, Tvl. Elev. 3,200'. Seeds.

299548. (337)

Perennial; without stolons. Level terrain, sandy soil, Nahpe road, Kruger National Park. Annual rainfall 22", elev. 1,100'. Seeds.

299549. (400)

Perennial. Commercial seed from Estcourt Research Farm, Estcourt, Natal. Seeds.

(426)

Stoloniferous perennial; head height 30". Disturbed site, hilly terrain, hard clay soil; 10 mi. west of Pietermaritzburg, Natal. Stolons.

299550. (427)

Stoloniferous perennial. Seeds of Col. 426.

299551. (445)

Stoloniferous perennial. Weed in field, level terrain; 1 mi. northeast of Hluhluwe Game Reserve, Natal. Annual rainfall 37", elev. 600'. Stolons.

299552. (532)

Stoloniferous perennial with few stolons. Sandy soil, bank of Modder River, Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

(582)

Stoloniferous perennial; long, strong stolons. Grootfontein Agricultural College, Middelburg, C.P. Originally from Southern Rhodesia. Stolons

299553. (583)

Stoloniferous perennial, long, strong stolons. Grootfontein Agricultural College, Middelburg, C.P. Originally from Southern Rhodesia. Seeds.

299554. (614)

Stoloniferous perennial; leaf height 24", heavy seeder. Waste grounds, sandy soil, East London, C.P. Annual rainfall 30", elev. 29'. Seeds.

299555. (686)

Stoloniferous perennial. Waste land, Outiniqua Agricultural Research Station, George, C.P. Seeds.

299556. (698)

Stoloniferous perennial; forms good ground cover. Hilly terrain, ungrazed pasture, 7 mi. west of Riversdale, C.P. Annual rainfall 16", elev. 400'. Seeds.

CHLORIS MYRIOSTACHYA Hochst.

299557. (358)

Perennial bunchgrass; leaf height 20"; head height 28"; heavy seeder. Open grassland, level terrain, shallow clay loam; Hippo Pool road, Kruger National Park. Annual rainfall 21", elev. 1,050'. Seeds.

CHLOROPHYTUM ELATUM (Ait.) R. Br.

Liliaceae

299558. (552)

Ornamental viviparous vine. Dealesville, O.F.S. Cuttings.

CIENFUEGOSIA HILDEBRANDTII Garcke

Malvaceae

299559. (483)

Erect shrub, 24" high; leaves not distinctly lobed; flowers yellow, purple petal spot; style extruded; pollen orange; capsules small 3-5 carpellate; seeds small, brown fuzzy. Level terrain, sandy soil, Umfolozi Game Reserve, Natal. Seeds.

CISSUS QUADRANGULARIS L.

Vitaceae

299560. (267) Winged treebine, Local name: Wild grape.

Viny twining plants; fruits small, in clusters along stem, bright red. Shallow rocky soil, open grassland, 22 mi. north of Pietersburg, Tvl. on Hwy. N-1. Annual rainfall 22", elev. 4,000'. Cuttings.

CISSUS SP.

299561. (365)

Decumbent vine, twining on brush and weeds. Hilly terrain, red clay soil, 10 mi. west of Nelspruit, Tvl. on Hwy. N-4. Cuttings.

299562. (366)

Fleshy vine. Waste grounds, Nelspruit, Tvl. Cuttings.

CITRULLUS LANATUS (Thunb.) Mansf.

Curcubitaceae

299563. (466) Watermelon

'Amakeba' Melon round, about 8" in diameter, skin light green mottled; flesh white; seeds small, brown; in cultivated field, south of Jozini Dam Pongola River, Natal. Seeds.

- CORTADERIA SELLOANA (Schult.) Aschers & Gaertn. Gramineae
 299564. (511) Pampasgrass
 Erect perennial bunchgrass; 10' high, forms large clumps.
 Public park, Harrismith, O.F.S. Seeds.
- COTYLEDON ORBICULATA L. Crassulaceae
 299565. (694)
 Stoloniferous succulent; decumbent, 12" high. Used in
 dune stabilization. Forest Station, Stilbaai, C.P. Seeds.
- CRINUM MACOWANII Baker Amaryllidaceae
 299566. (345)
 Erect bulbous plant, 30" high; bulbs large; leaves strap-
 like, broad; flowers large, white with pink stripe; capsules
 inflated. Level terrain, open grassland near Loop road,
 Kruger National Park. Annual rainfall 21", elev. 1,050'.
 Seeds.
- CROTALARIA JUNCEA L. Leguminosae
 299567. (362) Sunnhemp
 Erect annual. Office of Technical Services, Nelspruit,
 Tvl. Seeds.
- CUCUMIS MYRIOCARPUS Naudin Cucurbitaceae
 299568. (328) Local name: Wild cucumber
 Prostrate vine; fruits variegated green when immature,
 yellow when mature, 1 x 1¼", bitter. Waste ground, level
 terrain, rocky sandy soil, 1 mi. north of Hwy. N-4,
 Malelane, Tvl. Seeds.
- CUCUMIS ZEYHERI Sond.
 299569. (244) Local name: Wild cucumber
 Prostrate vine; fruits 1½ x 2", variegated when immature,
 light yellow when ripe; spines short, dull. Disturbed
 site, open grassland, rocky, gravelly soil, 5 mi. north
 of Pretoria, Tvl. Seeds.
299570. (416)
 Prostrate vine; fruits spiny; variegated when immature,
 yellow when mature. Wasteland, hard red clay, Mooi River
 valley, 8 mi. north of Muden, Natal. Annual rainfall 20",
 elev. 2,800'. Seeds.
299571. (563)
 Prostrate vine; fruits variegated when immature, yellow
 when mature; 1½ x 2½". Disturbed site, level terrain,
 5 mi. east of Barkley West, O.F.S. on Hwy. S-5. Annual
 rainfall 15", elev. 4,000'. Seeds.

299572. (605)

Prostrate vine; spiny fruits variegated when immature, yellow when mature, 1½ x 2". Level, ungrazed rangeland, 12 mi. southwest of Jasenville, C.P. on Pearston road. Annual rainfall 8", elev. 1,600'. Seeds.

CUCURBITA MAXIMA Duchesne.

299573. (367) Squash

Commercial seed from Cyclops Seeds, Pretoria. An unnamed variety developed in South Africa. Seeds.

CUCURBITA MOSCHATA Duchesne.

299574. (615) Cushaw

'Marrow'. Fruits shape and size variable, with distinctive knobs mottled green when immature, deep orange when mature, pumpkin-shaped, about 7" in diameter. South Africa's most popular variety. Seeds.

CUCURBITA PEPO L.

299575. (368) Pumpkin

'Little Gem'. Commercial variety from Cyclops Seeds, Pretoria, Tvl. Seeds.

CYNODON DACTYLON (L.) Pers.

Gramineae

299576. (202) Local name: Outeniqua. Bermudagrass
Stoloniferous perennial; cold tolerant lawngrass. Plot 6, Horticultural Research Institute, Pretoria. Originally from Cape Province. Stolons.

(256)

Stoloniferous perennial; extremely long vigorous stolons. Open grassland, Nyl River plain, hard rocky soil, 13 mi. north of Nylstroom, Tvl. on Hwy. N-1.

299577. (419)

Stoloniferous perennial; forms good ground cover. Irrigation ditch bank, clay loam soil, Muden, Natal. Annual rainfall 20", elev. 2,800'. Stolons.

299578. (567)

Stoloniferous perennial, stems large; forms complete cover under grazing. Riet River bank, clay loam soil, 3 mi. south of Jacobsdal, O.F.S. Annual rainfall 15", elev. 4,000'. Stolons.

299579. (751) Local name: Harrismith fine.

Stoloniferous perennial; lawngrass, narrow leaves. Horticultural Research Institute, Pretoria, Tvl. Stolons.

CYNODON DACTYLON VAR. DENSUS Hurcombe

299580. (200) Bermudagrass. Local name: Kweek
Stoloniferous perennial; lawngrass. Horticultural Research
Institute, Pretoria, Tvl. Originally from Germiston, Tvl.
Stolons.

CYNODON HIRSUTUS Stent

(302) Local name: Hairy couchgrass
Stoloniferous perennial; prostrate, rooting at all nodes.
Mountainous terrain, open grassland, Mt. Anderson, 7 mi. east
of Lydenburg, Tvl. Plants occur in decayed rock. Western
exposure, elev. 6,700'. Stolons.

299581. (554) Local name: Hairy couchgrass
Stoloniferous perennial; plants prostrate, low, grow well
in shade. Open rangeland, dry, rocky, clay soil, 20 mi.
east of Kimberley, C.P. on Hwy. N-8. Annual rainfall
16", elev. 4,000'. Stolons.

CYNODON INCOMPLETUS Nees

299582. (663)
Stoloniferous perennial; prostrate; fine stems. Ungrazed
pasture, 1 mi. northeast of Uitenhage, C.P. Stolons.

CYNODON MAGENNISII Hurcombe

299583. (201) Local name: Magennis
Stoloniferous perennial; lawngrass. Plot 4, Horticultural
Research Institute, Pretoria, Tvl. Stolons.

CYNODON SP.

299584. (205) Local name: Reitz
Stoloniferous perennial; cold tolerant lawngrass. Plot 16,
Horticultural Research Institute, Pretoria, Tvl. Stolons.

299585. (206) Local name: Damascus
Stoloniferous perennial; prostrate lawngrass. Plot B,
Horticultural Research Institute, Pretoria, Tvl. Originally
from Damascus, Tvl. Stolons.

DACTYLOCTENIUM AEGYPTIUM (L.) Richt.

299586. (343) Durban crowfoot grass, Local name: Heartseed grass
Perennial bunchgrass; basal leaves few, head height 15".
Scrub timber, sandy soil, Loop road, Kruger National Park.
Annual rainfall 21", elev. 1,050'. Seeds.

DACTYLOCTENIUM AUSTRALE Steud.

299587. (438) Local name: Durbangrass
Stoloniferous perennial; aggressive; prostrate. Sandy soil,
disturbed site, Hluhluwe Game Reserve, Natal. Annual rainfall
37", elev. 600'. Recommended lawngrass for shady sites in
frost-free areas. Stolons.

299588. (613)

Stoloniferous perennial. Seaside park, exposed to salt spray, sandy soil East London, C.P. Annual rainfall 30", elev. 22'. Seeds.

DACTYLOCTENIUM GEMINATUM Hack.

299591. (354)

Stoloniferous perennial; stems large, brittle, rooting at nodes. Open grassland, shallow sand, near Skukuza rest camp, Kruger National Park, Tvl. Annual rainfall 21", elev. 1,050'. Stolons.

DESMODIUM CAFFRUM (Meyer) Druce

Leguminosae

299590. (443)

Erect shrub, 18" high; seed pods terminal. Open grassland, hilly terrain, sandy soil, Hluhluwe Game Reserve, Natal. Annual rainfall 30", elev. 825'. Seeds.

DIERMA PULCHERRIMA (Hook. f.) Baker

Iridaceae

299589. (752)

Cultivated ornamental. Kirstenbosch Botanic Gardens, Newlands, C.P. Seeds.

DIGITARIA ARGYROGRAPTA (Nees) Stapf

Gramineae

299592. (571)

Perennial bunchgrass; leaf height 6"; head height 24". Open pasture, red clay soil, Grootfontein Agricultural College, Middelburg, C.P. Annual rainfall 13", elev. 4,300'. Seeds.

299593. (581)

Rhizomatous perennial bunchgrass; leaf height 14"; head height 30". Grootfontein Agricultural College, Middelburg, C.P. Seeds.

299594. (609)

Perennial bunchgrass; leaf height 15", head height 36". Ungrazed pasture, clay loam, 10 mi. southeast of Somerset East, C.P. Annual rainfall 20", elev. 2,500'. Seeds.

DIGITARIA CHEVALIERI Stapf

299595. (223)

Stoloniferous perennial; reddish stems; leaves sparse. Plot 548, Rietondale Res. Sta., Pretoria. Originally from Suk Reserve, Kenya. Stolons.

DIGITARIA DEBILIS (Desf.) Willd.

299596. (314)

Annual, roots at lower nodes; stems fine; leaf height 20", head height 24". Cut-over timber land, mountain plateau, 21 mi. northwest of White River (town), Tvl.; Spitakop Plantation; elev. 5,450'. Stems.

DIGITARIA DECUMBENS Stent

299597. (105) Pangolagrass

Stoloniferous perennial; stems fine; leaf height 17". Plot 409, Rietondale Res. Sta., Pretoria. Originally from Kalahari. Stolons.

299598. (106)

Stoloniferous perennial; stems fine; leaf height 13". Plot 408, Rietondale Res. Sta., Pretoria. Originally from Bechuanaland. Stolons.

299599. (127)

Stoloniferous perennial; stems fine; foliage blue-green; leaf height 15". Plot 769, Rietondale Res. Sta., Pretoria. Stolons.

299600. (173)

Stoloniferous perennial; stems fine; leaf height 14". Plot 666, Rietondale Res. Sta., Pretoria. Originally from Belfast, Tvl. Stolons.

299601. (210)

Stoloniferous perennial; stems fine; leaf height 9". Plants form good ground cover. Plot 605, Rietondale Res. Sta., Pretoria. Originally from Nelspruit, Tvl. Stolons.

299602. (316)

Stoloniferous perennial; stolons long; leaf height 12", seed heads few. Plants form good ground cover. Waste grounds along railroad, Alkmaar, Tvl., 11 mi. west of Nelspruit, Tvl. Hwy. N-4. Crocodile River plain, sandy soil. Stolons.

299603. (317)

Stoloniferous perennial; stolons few; stems fine, glabrous; leaf height 12", head height 30"; racemes short. Clay loam soil, Lowveld Research Station, Barberton, Tvl.; elev. 2,300'. Stolons.

299604. (324)

Stoloniferous perennial; stolons few; stems hirsute; leaf height 10". Ungrazed land, sandy gravelly soil; 1 mi. west of Tonetti, Tvl., Hwy. N-4, elev. 2,840'. Stolons.

299605. (330)

Stoloniferous perennial; stolons few; stems fine; leaf height 8". Crocodile River plain, sandy land, ungrazed pasture, Hectorspruit, Tvl., Hwy. N-4. Annual rainfall 20", elev. 1,250'. Stolons.

299606. (458)

Stoloniferous perennial; stolons few; long; stems fine, hirsute; foliage light green. Disturbed site, Pongola River bridge, Hwy. N-14, 10 mi. north of Mkuze, Natal. Annual rainfall 24", elev. 500'. Stolons.

299607. (459)

Seeds of PI 299606.

299608. (472)

Stoloniferous perennial; stems fine, hirsute; leaf height 6"; head height 24". Level terrain, white sand, 1 mi. east of Pongola River, Tongaland, Natal. Annual rainfall 21", elev. 400'. Stolons.

DIGITARIA DIAGONALIS (Nees) Stapf

299609. (286)

Perennial bunchgrass. Leached lateritic clay loam, disturbed site along railroad; Westfalia Estate, Duiwelskloof, Tvl., elev. 3,000'. Seeds.

DIGITARIA DIVERSINERVIS (Nees) Stapf

299610. (204) Local name: Richmondgrass

Stoloniferous perennial; stems fine. Does well in light shade on sandy soils low in pH; lawngrass. Plot 9, Horticultural Research Institute, Pretoria. Originally from Natal. Stolons.

299611. (428) Local name: Richmondgrass

Stoloniferous perennial. Shaded site, sandy soil, bank of Umgeni River at Baynes Drift, 12 mi. northeast of Pietermaritzburg, Natal, elev. 2,100'. Stolons.

299612. (435) Local name: Richmondgrass

Stoloniferous perennial; leafy; leaf height 24". Level terrain, deep shaded site, 32 mi. north of Tugela River on Hwy. N-14. Annual rainfall 45", elev. 500'. Stolons.

299613. (486)

Stoloniferous perennial; stems fine, hirsute at nodes. Disturbed shaded site, sandy soil, 13 mi. east of Mtubatuba, St. Lucia road, Natal, elev. 300'. Stolons.

DIGITARIA ERIANTHA Steud.

299614. (107)

Rhizomatous bunchgrass; stems medium coarse; leaf height 9"; seedheads few. Plot 404, Rietondale Res. Sta., Pretoria. Originally from Pitsari, Bechuanaland. Rhizomes.

299615. (108)

Rhizomatous bunchgrass; few stolons stems medium coarse; leaf height 13". Plot 403, Rietondale Res. Sta., Pretoria. Originally from Sehitwa, Kalahari. Stolons.

299616. (131)

Bunchgrass, few stolons; stems medium coarse; leaf height 14". Plot 749, Rietondale Res. Sta., Pretoria. Originally from Natal. Stolons.

299617. (132)

Stoloniferous perennial; stems medium coarse; leaf height 14"; leaves narrow. Plot 751, Rietondale Res. Sta., Pretoria. Originally from Zeerust, Tvl. Stolons.

299618. (148)

Stoloniferous perennial, stems medium coarse; leaf height 14"; seed heads few. Plot 748, Rietondale Res. Sta., Pretoria. Originally from Stella, C.P. Stolons.

299619. (150)

Rhizomatous bunchgrass; few stolons; stems medium coarse; leaf height 10"; seed heads few. Plot 723, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Reneke, C.P. Stolons.

299620. (151)

Rhizomatous bunchgrass; few stolons; stems fine; leaf height 10", seed heads few; aggressive. Plot 725, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Reneke, C.P. Stolons.

299621. (152)

Rhizomatous bunchgrass; few stolons; stems coarse; leaf height 13". Plot 708, Rietondale Res. Sta., Pretoria. Originally from Middelburg, Tvl. Stolons.

299622. (155)

Rhizomatous bunchgrass; few stolons; leaf height 14". Plot 715, Rietondale Res. Sta., Pretoria. Originally from Settlers, Tvl. Stolons.

299623. (165)

Bunchgrass; stems medium coarse; leaf height 8"; seed heads few. Plot 703, Rietondale Res. Sta., Pretoria. Originally from Losberg, Tvl. Stems.

299624. (167)

Bunchgrass; few stolons; stems coarse; leaf height 15". Plot 682, Rietondale Res. Sta., Pretoria. Originally from Rust der Winter, Tvl. Stolons.

299625. (177)

Bunchgrass; stems fine; leaf height 15"; foliage dark green. Plot 678, Rietondale Res. Sta., Pretoria. Originally from Bandelierkop, Tvl. Stems.

299626. (178)

Bunchgrass; leaf height 14"; seedheads few; leaves narrow; foliage dark green. Plot 651, Rietondale Res. Sta., Pretoria. Originally from Pienaarsriver, Tvl. Stems.

299627. (189)

Bunchgrass; stems coarse; leaf height 8"; seedheads few. Plot 628, Rietondale Res. Sta., Pretoria. Originally from Pienaarsriver, Tvl. Stems.

299628. (211)

Bunchgrass; stems fine; leaf height 16". Plot 608, Rietondale Res. Sta. Originally from Reitz Farm, White River, Tvl. Stems.

299629. (212)

Bunchgrass; leaf height 20". Plot 587, Rietondale Res. Sta., Pretoria. Originally from Olifantshoek, Tvl. Seeds.

299630. (222)

Bunchgrass; stems coarse; leaf height 14". Plot 541, Rietondale Res. Sta., Pretoria. Originally from Armoeds Vlakte, C.P. Stems.

299631. (229)

Stoloniferous perennial; stems medium coarse; leaf height 12"; shade tolerant. Plot 476, Rietondale Res. Sta., Pretoria. Originally from Vryburg, C.P. Stolons.

299632. (547)

Rhizomatous bunchgrass; leaf height 14". Weed in plots on Glen Agricultural College Farm, Glen, O.F.S. Annual rainfall 20"; elev. 4,200'. Seeds.

299633. (606)

Perennial bunchgrass; leaf height 10"; head height 24". Range-land, 24 mi. southeast of Jasenville, C.P. Annual rainfall 8", elev. 1,600'. Seeds.

299634. (670)

Rhizomatous perennial; bunchgrass; leaf height 12"; head height 24". Low, wet, disturbed site; 10 mi. east of Uitenhage, C.P. Annual rainfall 15", elev. 200'. Seeds.

299635. (691)

Rhizomatous perennial; bunchgrass; leaf height 7"; head height 20". Waste grounds, Riversdale, C.P., shallow rocky clay soil. Annual rainfall 16", elev. 400'. Seeds.

299636. (699)

Rhizomatous perennial; bunchgrass; leaf height 10"; head height 36". Ungrazed pasture, rocky, clay soil, 18 mi. west of Riversdale, C.P., Hwy. N-2. Annual rainfall 18", elev. 500'. Seeds.

DIGITARIA GAZENSIS Rendle

299637. (217)

Rhizomatous perennial; few rhizomes; leaf height 14". Plants form medium size clumps. Plot 554, Rietondale Res. Sta., Pretoria. Originally from Hluhluwe Game Reserve, Natal. Seeds.

299638. (219)

Rhizomatous perennial. Rhizomes of PI 299637.

DIGITARIA GENICULATA Stent

299639. (629)

Stoloniferous perennial; stolons glabrous except on leaf sheaths. Plants form good ground cover under grazing. Grazed pasture, shallow clay loam; 50 mi. southwest of East London, C.P. Annual rainfall 25", elev. 500'. Seeds.

299640. (679)

Rhizomatous perennial; bunchgrass; leaf height 8", head height 24". Disturbed site, sandy loam; Gamtoos River plain, 15 mi. east of Humansdorp, C.P., Hwy. N-2. Seeds.

299641. (690)

Perennial bunchgrass; leaf height 8"; head height 20". Disturbed site, shallow clay soil; 10 mi. west of Mosselbaai, C.P., Hwy. N-2. Annual rainfall 24", elev. 300'. Seeds.

DIGITARIA LONGIFLORA (Retz.) Pers.

299642. (141)

Stoloniferous perennial; stems fine; leaf height 4"; foliage dark green. Plants form good ground cover; lawngrass. Plot 735, Rietondale Res. Sta., Pretoria. Stolons.

299643. (283)

Stoloniferous perennial; short branching stolons; prostrate; leaf height 3". Old roadbed, red clay soil, Westfalia Estate, Duiwelskloof, Tvl., elev. 3,400'. Stolons.

299644. (437)

Stoloniferous perennial; stems fine; two racemes per inflorescence. Disturbed site, sandy soil; Hluhluwe Game Reserve, Natal. Annual rainfall 35", elev. 600'. Stolons.

DIGITARIA MACROGLOSSA Henr.

299645. (425)

Rhizomatous perennial; clumps to 12" in diameter; leaf height 20"; head height 48"; heavy seeder. Disturbed site, clay loam; Wartburg road, 5 mi. northwest of Pietermaritzburg, Natal. Annual rainfall 30", elev. 2,700'. Seeds.

299646. (441)

Bunchgrass; head height 36". Plants form small clumps. Open grassland, sandy clay, Hluhluwe Game Reserve, Natal. Annual rainfall 35", elev. 850'. Seeds.

299647. (484)

Rhizomatous bunchgrass; strong rhizomes; leaf height 15"; head height 48". Plants form large clumps. Disturbed site, white sand; 2 mi. east of Mtubatuba, St. Lucia road, Natal, elev. 300'. Seeds.

299648. (488)

Rhizomatous perennial; leaf height 20"; head height 36"; inflorescence has large long racemes. Plants form large clumps. Coastal dunes, 1 mi. east of St. Lucia, Natal, elev. 24'. Rhizomes.

299649. (620)

Rhizomatous perennial; leaf height 15", head height 48". Plants form large clumps; strongly rhizomatous. Weed in cultivated field; Pineapple Research Station, East London, C.P. Annual rainfall 30", elev. 500'. Seeds.

299650. (682)

Rhizomatous perennial; leaf height 15"; head height 40". Low, wet disturbed site; 3 mi. west of Keurbooms River, C.P., Hwy. N-2. Seeds.

299651. (684)

Rhizomatous perennial; leaf height 12"; head height 40"; strongly rhizomatous, forming clumps. Disturbed site, open grassland, 5 mi. west of Knysna River, C.P., Hwy. N-2. Annual rainfall 24", elev. 400'. Seeds.

DIGITARIA MACROGLOSSA VAR. PROSTRATA (Stent) Henr.

299652. (418)

Stoloniferous perennial; stolons few; stems large; head height 36". Wasteland, hard rocky clay; 8 mi. north of Muden, Natal, Mooi River valley. Annual rainfall 20", elev. 2,800'. Stolons.

299653. (423)

Seeds of PI 299652.

299654. (683)

Stoloniferous perennial; rhizomatous; stems large; leaf height 12"; head height 40". Rocky soil; 3 mi. north of Plettenbergbaai C.P., Hwy. N-2. Annual rainfall 20", elev. 150'. Seeds.

DIGITARIA MILANJIANA (Rendle) Stapf

299655. (2) Local name: Fingergrass, Mlanjigrass

Stoloniferous perennial; stems medium coarse; leaf height 14". Plot 467, Rietondale Res. Sta., Pretoria. Originally from Lake Dow, Bechuanaland. Stolons.

299656. (5)

Perennial bunchgrass; fine stems; leaf height 24". Plot 464, Rietondale Res. Sta., Pretoria. Stems.

299657. (8)

Stoloniferous perennial; stems fine; leaf height 10". Plot 461, Rietondale Res. Sta., Pretoria. Stolons.

299658. (11)

Stoloniferous perennial; stems fine; leaf height 10". Plot 458, Rietondale Res. Sta., Pretoria. Stolons.

299659. (12)

Stoloniferous perennial; stems medium coarse; leaf height 10"; leaves broad with considerable reddish color. Plot 457, Rietondale Res. Sta., Pretoria. Stolons.

299660. (15)

Perennial bunchgrass; stems coarse; leaf height 6"; seedheads few. Plot 833, Rietondale Res. Sta., Pretoria. Stems.

299661. (16)

Stoloniferous perennial; stems fine; leaf height 12". Plot 834, Rietondale Res. Sta., Pretoria. Stolons.

299662. (17)

Stoloniferous perennial; stems fine; leaf height 12". Plot 835, Rietondale Res. Sta., Pretoria. Stolons.

299663. (27)

Stoloniferous perennial; few stolons; leaf height 16". Plot 825, Rietondale Res. Sta., Pretoria. Originally from Nanjuki, Kenya. Stolons.

299664. (28)

Stoloniferous perennial; stems medium coarse; leaf height 16". Plot 826, Rietondale Res. Sta., Pretoria. Originally from Yatta Plains, Kenya. Stolons.

299665. (29)

Stoloniferous perennial; stems medium coarse; leaf height 8". Plot 827, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299666. (31)

Stoloniferous perennial; few stolons; stems medium coarse; leaf height 18". Plot 829, Rietondale Res. Sta., Pretoria. Originally from Nauanga River, Kenya. Stolons.

299667. (33)

Stoloniferous perennial; stems fine; leaf height 10". Plot 831, Rietondale Res. Sta., Pretoria. Originally from Banagi Plains, East Africa. Stolons.

299668. (37)

Stoloniferous perennial; stems fine; leaf height 8"; foliage blue-green. Plot 452, Rietondale Res. Sta., Pretoria. Originally from Tsotsoroga Pan, Bechuanaland. Stolons.

299669. (41)

Stoloniferous perennial; stems fine; leaf height 18". Plot 448, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299670. (45)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 444, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299671. (48)

Stoloniferous perennial; stems fine; leaf height 8". Plot 441, Rietondale Res. Sta., Pretoria. Stolons.

299672. (55)

Stoloniferous perennial; very few stolons; stems coarse; leaf height 15"; foliage blue-green. Plot 433, Rietondale Res. Sta., Pretoria. Originally from n°Koahra Pits, Kalahari. Stolons.

299673. (58)

Stoloniferous perennial; stems fine; leaf height 12". Plot 430, Rietondale Res. Sta., Pretoria. Originally from Kalahari. Stolons.

299674. (61)

Stoloniferous perennial; stems medium coarse; leaf height 20". Plot 427, Rietondale Res. Sta., Pretoria. Originally from Zarchum Pan, Kalahari. Stolons.

299675. (65)

Stoloniferous perennial; stems coarse; leaf height 15", leaves broad. Plot 808, Rietondale Res. Sta., Pretoria. Originally from Shire River, Nyasaland. Stolons.

299676. (66)

Stoloniferous perennial; stems medium coarse; leaf height 24". Plants very leafy, outstanding for yield. Plot 809, Rietondale Res. Sta., Pretoria. Originally from Ruenya, Nyasaland. Stolons.

299677. (67)

Stoloniferous perennial; stems fine; leaf height 6"; seedheads few. Plot 810, Rietondale Res. Sta., Pretoria. Originally from Ruenya, Nyasaland. Stolons.

299678. (69)

Stoloniferous perennial; stems medium coarse; leaf height 6". Plot 812, Rietondale Res. Sta., Pretoria. Originally from Ruenya, Nyasaland. Stolons.

299679. (70)

Stoloniferous perennial; stems medium coarse; leaf height 12"; seedheads few. Plot 813, Rietondale Res. Sta., Pretoria. Originally from Ruenya, Nyasaland. Stolons.

299680. (75)

Stoloniferous perennial; stolons few; stems medium coarse; leaf height 12". Plot 818, Rietondale Res. Sta., Pretoria. Originally from Lion Camp, S. W. Africa. Stolons.

299681. (77)

Stoloniferous perennial; stems fine; leaf height 16". Plot 792, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Stolons.

299682. (81)

Stoloniferous perennial; stems fine; leaf height 8". Plot 796, Rietondale Res. Sta., Pretoria. Originally from Zomba Plateau, Nyasaland. Stolons.

299683. (89)

Stoloniferous perennial; stems medium coarse; leaf height 24". Plot 804, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Stolons.

299684. (92)

Stoloniferous perennial; stems fine; leaf height 20". Plot 424, Rietondale Res. Sta., Pretoria. Originally from Kachikau, Bechuanaland. Stolons.

299685. (93)

Stoloniferous perennial; stems fine; leaf height 20". Plot 423, Rietondale Res. Sta., Pretoria. Originally from N'Koana Pits, Kalahari. Stolons.

299686. (99)

Stoloniferous perennial; stems fine; leaf height 12". Plot 417, Rietondale Res. Sta., Pretoria. Originally from Kazungula, Northern Rhodesia. Stolons.

299687. (109)

Stoloniferous perennial; stems fine; leaf height 18". Plot 402, Rietondale Res. Sta., Pretoria. Originally from Lake Dow, Bechuanaland. Stolons.

299688. (112)

Stoloniferous perennial; stems fine; leaf height 18". Plot 778, Rietondale Res. Sta., Pretoria. Originally from Northern Rhodesia. Stolons.

299689. (113)

Stoloniferous perennial; stems fine; leaf height 8"; early maturity. Plot 779, Rietondale Res. Sta., Pretoria. Originally from Rakuku, Bechuanaland. Stolons.

299690. (115)

Stoloniferous perennial; stems fine; leaf height 6". Plot 781, Rietondale Res. Sta., Pretoria. Originally from Shire River, Nyasaland. Stolons.

299691. (116)

Stoloniferous perennial; stems fine; leaf height 14". Plot 782, Rietondale Res. Sta., Pretoria. Originally from Tsotsoroga Pan, Bechuanaland. Stolons.

299692. (134)

Stoloniferous perennial; stems fine; leaf height 6"; seedheads very few. Plants form good ground cover. Plot 754, Rietondale Res. Sta., Pretoria. Originally from Malmanioog, Tvl. Stolons.

299693. (162)

Stoloniferous perennial; stems fine; leaf height 10". Plants form good ground cover. Plot 699, Rietondale Res. Sta., Pretoria. Originally from St. Lucia, Natal. Stolons.

299694. (170)

Stoloniferous perennial; stems fine; leaf height 12". Plot 688, Rietondale Res. Sta., Pretoria. Originally from Serengeti Flats, Tanganyika. Stolons.

299695. (174)

Stoloniferous perennial; stems fine; leaf height 8"; plants fairly aggressive. Plot 670, Rietondale Res. Sta., Pretoria. Originally from Dongola Reserve, Tvl. Stolons.

299696. (176)

Stoloniferous perennial; stems fine; leaf height 20". Plants form good ground cover. Plot 677, Rietondale Res. Sta., Pretoria. Originally from Somkele, Natal. Stolons.

299697. (193)

Stoloniferous perennial; stems coarse; leaf height 6"; seedheads few; foliage dark green. Plot 611, Rietondale Res. Sta., Pretoria. Originally from Somkele, Natal. Stolons.

299698. (196)

Stoloniferous perennial; stems coarse; leaf height 8"; leaves broad; foliage blue-green. Plot 622, Rietondale Res. Sta., Pretoria. Originally from Umfolozi River, Natal. Stolons.

299699. (227)

Stoloniferous perennial; stems medium coarse; leaf height 24". Plot 499, Rietondale Res. Sta., Pretoria. Originally from Kuruman, C.P. Stolons.

299700. (276)

Stoloniferous perennial; leaf height 10". Roadside ditch, sandy loam, between Hout and Sand Rivers, 15 mi. west of Louis Trichardt, Tvl. Stolons.

299701. (279)

Stoloniferous perennial; rhizomes strong; leaf height 12"; head height 24". Road ditch near Luvuvhu River, 15 mi. east of Louis Trichardt, Tvl. Stolons.

299702. (287)

Rhizomatous perennial; plants form dense sod. Disturbed site along railroad, leached lateritic clay; Westfalia Estate, Duiwelskloof, Tvl., elev. 3,000'. Rhizomes.

(318)

Stoloniferous perennial; leaf height 16"; head height 48". Plants glabrous with incipient rhizomes. Lowveld Research Station, Barberton, Tvl., elev. 2,300'. Stolons.

DIGITARIA MILANJIANA SUBSP. EYLESIANA Henr.

299703. (10)

Stoloniferous perennial; few stolons; stems fine; leaf height 12". Plot 459, Rietondale Res. Sta., Pretoria. Originally from Nababi Flats, Bechuanaland. Stolons.

299704. (25)

Stoloniferous perennial; stems medium coarse; leaf height 16". Plot 823, Rietondale Res. Sta., Pretoria. Originally from Kwaai, Bechuanaland. Stolons.

299705. (26)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 824, Rietondale Res. Sta., Pretoria. Stolons.

299706. (38)

Stoloniferous perennial; stems fine; leaf height 12". Plot 451, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299707. (42)

Stoloniferous perennial; stems fine; leaf height 18". Plot 447, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299708. (43)

Stoloniferous perennial; stems fine; leaf height 16". Plot 446, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299709. (46)

Stoloniferous perennial; stems fine; leaf height 14". Plot 443, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299710. (47)

Stoloniferous perennial; stems medium coarse; leaf height 15". Plot 442, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299711. (50)

Stoloniferous perennial; stolons few; stems medium fine; leaf height 18". Plot 438, Rietondale Res. Sta., Pretoria. Originally from Tsotsoroga Pan, Bechuanaland. Stolons.

299712. (51)

Stoloniferous perennial; stolons few; stems coarse; leaf height 16". Plot 437, Rietondale Res. Sta., Pretoria. Originally from Zarchum Pan, Kalahari. Stolons.

299713. (52)

Stoloniferous perennial; stems medium coarse; leaf height 10". Plot 436, Rietondale Res. Sta., Pretoria. Originally from N'Kuama Pits, Kalahari. Stolons.

299714. (53)

Stoloniferous perennial; stems fine; leaf height 14". Plot 435, Rietondale Res. Sta., Pretoria. Originally from N'Kuarra Pits, Kalahari. Stolons.

299715. (54)

Stoloniferous perennial; few stolons; stems coarse; leaf height 14". Plot 434, Rietondale Res. Sta., Pretoria. Originally from N'Kuama Pits, Kalahari. Stolons.

299716. (56)

Stoloniferous perennial; stolons few; stems coarse; leaf height 13". Plants form poor ground cover. Plot 432, Rietondale Res. Sta., Pretoria. Originally from N'Koara Pits, Kalahari. Stolons.

301141. (60)

Stoloniferous perennial; stems medium coarse; leaf height 15". Plot 428, Rietondale Res. Sta., Pretoria. Originally from Zarchum Pan, Kalahari. Stolons.

299717. (71)

Stoloniferous perennial; stems fine; leaf height 13"; early maturing. Plot 814, Rietondale Res. Sta., Pretoria. Originally from N'Koara Pits, Kalahari. Stolons.

299718. (72)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 815, Rietondale Res. Sta., Pretoria. Originally from Mt. Mlanja, Nyasaland. Stolons.

299719. (80)

Stoloniferous perennial; stems fine; leaf height 12". Plot 795, Rietondale Res. Sta., Pretoria. Originally from Shire River, Nyasaland. Stolons.

299720. (83)

Stoloniferous perennial; stems medium coarse; leaf height 22"; foliage blue-green. Plot 798, Rietondale Res. Sta., Pretoria. Originally from Ruenya, Nyasaland. Stolons.

299721. (86)

Stoloniferous perennial; stems fine; leaf height 22". Plot 801, Rietondale Res. Sta., Pretoria. Originally from Blantyre, Nyasaland. Stolons.

299722. (87)

Stoloniferous perennial; stems medium coarse; leaf height 14". Plot 802, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Stolons.

299723. (90)

Stoloniferous perennial; stems medium coarse; leaf height 24". Plot 426, Rietondale Res. Sta., Pretoria. Originally from Chobe River, Bechuanaland. Stolons.

299724. (91)

Stoloniferous perennial; stems fine; leaf height 24". Plants form good ground cover; outstanding for aggressiveness. Plot 425, Rietondale Res. Sta., Pretoria. Originally from Chobe River, Bechuanaland. Stolons.

299725. (100)

Stoloniferous perennial; stems fine; leaf height 16". Plot 416, Rietondale Res. Sta., Pretoria. Originally from Tsane, Bechuanaland. Stolons.

299726. (101)

Stoloniferous perennial; stolons few; stems medium coarse; leaf height 18". Plot 415, Rietondale Res. Sta., Pretoria. Originally from Zanchum Pan, Kalahari. Stolons.

(102)

Stoloniferous perennial; stems medium coarse; leaf height 14". Plot 414, Rietondale Res. Sta., Pretoria. Originally from Zanchum Pan, Kalahari. Stolons.

299727. (103)

Stoloniferous perennial; stems fine; leaf height 15"; head height 36". Plot 413, Rietondale Res. Sta., Pretoria. Originally from Tsane, Bechuanaland. Stolons.

299728. (104)

Stoloniferous perennial; stems medium coarse; leaf height 17". Plot 410, Rietondale Res. Sta., Pretoria. Stolons.

299729. (117)

Stoloniferous perennial; stems fine; leaf height 14". Plot 783, Rietondale Res. Sta., Pretoria. Originally from Rakuku, Bechuanaland. Stolons.

299730. (120)

Stoloniferous perennial; stems fine; leaf height 20"; head height 48". Plot 789, Rietondale Res. Sta., Pretoria. Originally from Rakops, Bechuanaland. Stolons.

299731. (121)

Stoloniferous perennial; stems fine; leaf height 14". Plot 790, Rietondale Res. Sta., Pretoria. Originally from Maun, Bechuanaland. Stolons.

299732. (163)

Stoloniferous perennial; stems fine; red; leaf height 10". Plot 700, Rietondale Res. Sta., Pretoria. Originally from St. Lucia, Natal. Stolons.

299733. (175)

Stoloniferous perennial; few stolons; stems fine; leaf height 12"; seedheads few. Plot 675, Rietondale Res. Sta., Pretoria. Originally from Pietersburg, Tvl. Stolons.

299734. (181)

Stoloniferous perennial; stems fine; leaf height 8". Plot 660, Rietondale Res. Sta., Pretoria. Originally from Pietersburg, Tvl. Stolons.

299735. (184)

Stoloniferous perennial; stolons few; stems medium coarse; leaf height 16". Plot 463, Rietondale Res. Sta., Pretoria. Originally from Tsiolo, Kenya. Stolons.

299736. (186)

Stoloniferous perennial; stems medium coarse; leaf height 8"; seedheads very few. Plot 646, Rietondale Res. Sta., Pretoria. Originally from Matabele Location, Basutoland. Stolons.

299737. (199)

Stoloniferous perennial; stems coarse. Somewhat shade tolerant. Plot 601, Rietondale Res. Sta., Pretoria. Originally from Prinshof Research Station, Tvl. Stolons.

299738. (216)

Stoloniferous perennial; stems medium coarse. Plot 576, Rietondale Res. Sta., Pretoria. Originally from Pretoria District, Tvl. Stolons.

DIGITARIA PENTZII Stent

299739. (3)

Stoloniferous perennial; stems fine; leaf height 16". Plot 466, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299740. (44)

Stoloniferous perennial; stems fine; leaf height 12". Plot 445, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299741. (68)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 811, Rietondale Res. Sta., Pretoria. Stolons.

299742. (84)

Stoloniferous perennial; stems medium coarse; leaf height 16". Plot 799, Rietondale Res. Sta., Pretoria. Stolons.

299743. (110)

Stoloniferous perennial; stems fine; leaf height 13"; foliage light green. Plants form good ground cover. Plot 401, Rietondale Res. Sta., Pretoria. Originally from Kolo, Mtn., C.P. Stolons.

299744. (118)

Stoloniferous perennial; stems medium coarse; internodes long; leaf height 12". Plot 786, Rietondale Res. Sta., Pretoria. Originally from N'Jakwa, East Africa. Stolons.

299745. (124)

Stoloniferous perennial; stems fine; leaf height 16". Plot 766, Rietondale Res. Sta., Pretoria. Originally from Potchefstroom, Tvl. Stolons.

299746. (137)

Stoloniferous perennial; leaf height 10"; seedheads few; early maturity. Plot 759, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Reneke, C.P. Stolons.

302766. (139)

Stoloniferous perennial; stems medium coarse; leaf height 8"; early maturity. Plot 761, Rietondale Res. Sta., Pretoria. Originally from Stella, C.P. Stolons.

299747. (154)

Stoloniferous perennial; stems fine; leaf height 10". Plot 713, Rietondale Res. Sta., Pretoria. Originally from Devon, Tvl. Stolons.

299748. (180)

Stoloniferous perennial; stems fine; leaf height 10". Plot 657, Rietondale Res. Sta., Pretoria. Originally from Somerset East, C.P. Stolons.

299749. (190)

Stoloniferous perennial; stems coarse; leaf height 14". Plot 629, Rietondale Res. Sta., Pretoria. Originally from Weenen, Natal. Stolons.

299750. (192)

Stoloniferous perennial; stolons few; foliage dark green; shade tolerant. Plot 609, Rietondale Res. Sta., Pretoria. Originally from Sabie, Tvl. Stolons.

299751. (197)

Stoloniferous perennial; stolons few; stems coarse; leaf height 10". Plot 597, Rietondale Res. Sta., Pretoria. Originally from Rhodesia. Stolons.

299752. (213)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 602, Rietondale Res. Sta., Pretoria. Stolons.

299753. (224)

Stoloniferous perennial; stems fine; leaf height 8". Plants do not control all weeds. Plot 533, Rietondale Res. Sta., Pretoria. Originally from Pongola River, Natal. Stolons.

299754. (226)

Stoloniferous perennial; stems fine; leaf height 16". Plants moderately shade tolerant. Plot 524, Rietondale Res. Sta., Pretoria. Originally from West Nicholson, Southern Rhodesia. Stolons.

299755. (228)

Stoloniferous perennial; leaf height 16". Plants form excellent ground cover. Plot 509, Rietondale Res. Sta., Pretoria. Originally from Twani, C.P. Stolons.

299756. (278) Local name: Wooly fingergrass

Stoloniferous perennial; roots strong, fleshy below crown; leaf height 8", head height 24". Open grassland, gravelly sand; 15 mi. southwest of Louis Trichardt, Tvl. Annual rainfall 20", elev. 3,100'. Stolons.

299757. (280)

Stoloniferous perennial; leaf height 12"; head height 28"; rhizomatous. Open grassland, sandy soil, hilly terrain, 20 mi. southeast of Louis Trichardt, Tvl. Stolons.

299758. (295)

Stoloniferous perennial; stolons few; leaf height 10"; head height 28"; foliage blue-green. Hilly terrain, hard gravelly clay soil, 14 mi. south of Tzaneen on Great Letaba River. Annual rainfall 25", elev. 2,400'. Seeds.

299759. (296) Local name: Wooly fingergrass

Stoloniferous perennial. Stolons of PI 299758.

(298)

Stoloniferous perennial; stolons few; stems small; leaf height 7". Dry streambed, hard sandy loam; 10 mi. south of Mica, Tvl. Annual rainfall 20", elev. 2,350'. Stolons.

299760. (321)

Stoloniferous perennial; stems small, hirsute. Disturbed site, hard gravely sand; 1 mi. east of Louws Creek, Tvl. Elev. 2,900'. Stolons.

299761. (323)

Stoloniferous perennial; hirsute; stolons few; leaf height 10". Disturbed site, gravely sandy soil; 1 mi. west of Tonetti, Tvl., Hwy. N-4. Stolons.

(332)

Stoloniferous perennial; leaf height 16"; head height 30"; hirsute. Open grassland, 2 mi. south of Komatipoort, Tvl., Hwy. N-4, elev. 1,050'. Stolons.

299762. (340)

Stoloniferous perennial; leaf height 10"; foliage light green; very narrow leaves. Nahpe Road, sandy soil, level terrain; Kruger National Park. Annual rainfall 20", elev. 1,100'. Stolons.

299763. (346)

Stoloniferous perennial; stems fine; head height 30". Dry streambed, partial shade, Loop Road, Kruger National Park. Annual rainfall 22", elev. 1,050'. Stolons.

299764. (348)

Seeds of PI 299763.

299765. (351)

Stoloniferous perennial; stolons few; stems fine. Plants do not form ground cover. Open grassland, shallow sandy soil; near Skukuza rest camp, Kruger National Park. Annual rainfall 22", elev. 1,000'. Stolons.

299766. (355)

Stoloniferous perennial; vigorous; stems large; leaf height 24"; head height 36". Heavy seeder; shade tolerant. Basalt rocky soil, very shallow; Kruger National Park. Stolons.

299767. (356)

Seeds of PI 299766.

299768. (440)

Stoloniferous perennial; aggressive; stems fine. Open grassland, sandy soil; Hluhluwe Game Reserve, Natal. Annual rainfall 33", elev. 450'. Stolons.

299769. (468)

Stoloniferous perennial; stolons few; stems fine; foliage hirsute, soft. Grazed pasture, shallow reddish rocky clay; 2 mi. north of Tobotini, Natal in Pongola River plain. Annual rainfall 21", elev. 400'. Stolons.

299770. (469)

Stoloniferous perennial; vigorous; stems fine, glabrous. Grazed rangeland, shallow, rocky clay; 5 mi. north of Tobotini, Natal. Annual rainfall 21", elev. 400'. Stolons.

299771. (470)

Stoloniferous perennial; stems fine; hirsute at nodes. Grazed pasture, pure sand, level terrain; 8 mi. north of Tobotini, Natal. Stolons.

299772. (545)

Stoloniferous perennial. Orchard weed, clay soil; Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

299773. (619)

Stoloniferous perennial; stolons few; leaf height 12", head height 40". Rolling terrain, sandy loam soil; 5 mi. west of East London, C.P. Annual rainfall 30", elev. 400'. Seeds.

299774. (624)

Stoloniferous perennial; stolons brittle, forming tufts at nodes; rhizomatous. Disturbed roadbank, 20 mi. southwest of East London, C.P. Annual rainfall 30", elev. 550'. Stolons.

299775. (627)

Stoloniferous perennial; stems fine. Plants form good ground cover under grazing. Shallow, rocky doleritic soil; grazed pasture; 40 mi. southwest of East London, C.P. Annual rainfall 25", elev. 500'. Stolons.

299776. (646)

Stoloniferous perennial; rhizomatous. Bathurst Agricultural Research Station, Bathurst, C.P. Annual rainfall 27", elev. 850'. Stolons.

299777. (653)

Stoloniferous perennial; stems medium coarse; leaf height 8", head height 36". Disturbed site along railroad, 5 mi. southwest of Alexandria, C.P. Annual rainfall 28", elev. 700'. Stolons.

299778. (654)

Seeds of PI 299777.

DIGITARIA PENTZII VAR. STOLONIFERA (Stapf) Henr.

299779. (436)

Stoloniferous perennial; stems fine; foliage soft; leaves hirsute. Disturbed site, sandy soil; Hluhluwe Game Reserve, Natal. Annual rainfall 32", elev. 600'. Stolons.

299780. (479)

Stoloniferous perennial; stolons few; hirsute; leaf height 12"; foliage blue-green. Open grassland, clay loam; Umfolozi Game Reserve, Natal. Annual rainfall 30", elev. 600'. Seeds.

DIGITARIA POLEVANSII Stent

299781. (18)

Stoloniferous perennial; stems coarse; leaf height 12"; seedheads few. Plot 836, Rietondale Res. Sta., Pretoria. Stolons.

299782. (79)

Stoloniferous perennial; stems fine; leaf height 22"; leafy. Plants form good ground cover. Plot 794, Rietondale Res. Sta., Pretoria. Stolons.

299783. (140)

Stoloniferous perennial; stems medium coarse; leaf height 8"; leaves very narrow; seedheads few. Plants form good ground cover. Plot 762, Rietondale Res. Sta., Pretoria. Originally from Stella, C.P. Stolons.

299784. (557)

Rhizomatous perennial; bunchgrass; leaf height 10"; plants form large clumps. Disturbed site, shallow rocky soil; level terrain; 5 mi. east of Barkley West, C.P. Seeds.

DIGITARIA POLYPHYLLA Henr.

299785. (215)

Rhizomatous bunchgrass; stolons few; leaf height 16"; leaves near end of stems. Plot 575, Rietondale Res. Sta., Pretoria. Seeds.

DIGITARIA SCALARUM (Schweinf.) Chiov.

299786. (408) Local name: Dunns fingergrass

Stoloniferous perennial; aggressive; leaf height 5"; head height 14". Springfontein de Hoek, Estcourt Research Farm, Estcourt, Natal. Annual rainfall 33", elev. 4,400'. Stolons.

DIGITARIA SETIVALVA Stent

299787. (7)

Stoloniferous perennial; stems fine; leaf height 12". Plot 462, Rietondale Res. Sta., Pretoria. Stolons.

299788. (9)

Stoloniferous perennial; stems very fine; leaf height 8". Plot 460, Rietondale Res. Sta., Pretoria. Originally from Baru River, Southern Rhodesia. Stolons.

299789. (13)

Stoloniferous perennial; stems fine; leaf height 12". Plot 456, Rietondale Res. Sta., Pretoria. Originally from Kenya. Stolons.

299790. (14)

Stoloniferous perennial; stems fine; leaf height 10". Plot 455, Rietondale Res. Sta., Pretoria. Originally from Suk Reserve, Kenya. Stolons.

299791. (22)

Stoloniferous perennial; stems fine; leaf height 8"; seedheads few. Plot 840, Rietondale Res. Sta., Pretoria. Stolons.

299792. (23)

Stoloniferous perennial; stems coarse; leaf height 24". Plot 821, Rietondale Res. Sta., Pretoria. Originally from Lake Ngami, Bechuanaland. Stolons.

299793. (24)

Stoloniferous perennial; stems coarse; leaf height 8"; seedheads few; internodes long. Plot 822, Rietondale Res. Sta., Pretoria. Originally from Congo River. Stolons.

299794. (34)

Stoloniferous perennial; stems medium coarse; leaf height 14". Plot 832, Rietondale Res. Sta., Pretoria. Originally from East Africa. Stolons.

299795. (35)

Stoloniferous perennial; stolons few; stems medium fine; leaves broad; leaf height 12". Plot 454, Rietondale Res. Sta., Pretoria. Originally from Tsotsoroga Pan, Bechuanaland. Stolons.

299796. (40)

Stoloniferous perennial; stems medium coarse; leaf height 20". Plot 449, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299797. (57)

Stoloniferous perennial; stems medium fine; leaf height 14". Plot 431, Rietondale Res. Sta., Pretoria. Originally from N'Koara Pits, Kalahari. Stolons.

299798. (76)

Stoloniferous perennial; stems fine; leaf height 10". Plot 791, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Stolons.

299799. (82)

Stoloniferous perennial; stems fine; leaf height 13". Plot 797, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Stolons.

299800. (85)

Stoloniferous perennial; stems fine; leaf height 12". Plot 800, Rietondale Res. Sta., Pretoria. Stolons.

299801. (94)

Stoloniferous perennial; stolons few; stems medium coarse; leaf height 20". Plot 442, Rietondale Res. Sta., Pretoria. Originally from Chobe River, Bechuanaland. Stolons.

301142. (97)

Stoloniferous perennial; stems fine; leaf height 18". Plot 419, Rietondale Res. Sta., Pretoria. Originally from Kazungula, Northern Rhodesia. Stolons.

299802. (98)

Stoloniferous perennial; stolons few; stems medium coarse; leaf height 10". Plot 418, Rietondale Res. Sta., Pretoria. Originally from Kazungula, Northern Rhodesia. Stolons.

299803. (130)

Stoloniferous perennial; stems fine; leaf height 24"; leafy. Plot 775, Rietondale Res. Sta., Pretoria. Stolons.

300193. (145)

Stoloniferous perennial; stems fine; leaf height 8"; seedheads few. Plot 741, Rietondale Res. Sta., Pretoria. Originally from Natal. Stolons.

299804. (214)

Stoloniferous perennial; stems fine; leaf height 12". Plot 592, Rietondale Res. Sta., Pretoria. Originally from Pretoria District, Tvl. Stolons.

299805. (218)

Stoloniferous perennial; stems fine; reddish; heavy seeder. Plot 555, Rietondale Res. Sta., Pretoria. Stolons.

299806. (221)

Stoloniferous perennial; stems coarse; leaf height 8"; leaves wiry. Plot 565, Rietondale Res. Sta., Pretoria. Originally from Horticultural Research Station, Nelspruit, Tvl. Stolons.

299807. (477)

Rhizomatous perennial; bunchgrass; leaf height 8"; seedheads large. Open grassland, shallow, coarse sandy soil; 12 mi. east of Nongoma, Natal. Seeds.

DIGITARIA SMUTSII Stent

299808. (4)

Stoloniferous perennial; few stolons, internodes long; leaf height 8"; early type. Plot 465, Rietondale Res. Sta., Pretoria. Stolons.

299809. (6)

Rhizomatous perennial; leaves broad; stems coarse; leaf height 6"; foliage blue-green. Plot 463, Rietondale Res. Sta., Pretoria. Rhizomes.

299810. (20)

Rhizomatous perennial; erect bunchgrass; leaf height 13"; head height 60". Plot 838, Rietondale Res. Sta., Pretoria. Rhizomes.

302767. (21)

Stoloniferous perennial; stems medium coarse; seedheads very few. Plot 839, Rietondale Res. Sta., Pretoria. Stolons.

299811. (36)

Stoloniferous perennial; stems wiry; leaf height 14"; seedheads very few. Plot 453, Rietondale Res. Sta., Pretoria. Originally from Tsotsoroga Pan, Kalahari. Stolons.

299812. (39)

Stoloniferous perennial; stems medium coarse; leaf height 14"; leaf sheaths hirsute. Plot 450, Rietondale Res. Sta., Pretoria. Originally from Goha Hills, Bechuanaland. Stolons.

299813. (78)

Stoloniferous perennial; stems coarse; leaf height 14"; foliage light green. Plot 793, Rietondale Res. Sta., Pretoria. Stolons.

299814. (95)

Stoloniferous perennial; stems fine; leaf height 10". Plot 421, Rietondale Res. Sta., Pretoria. Originally from Chobe River, Bechuanaland. Stolons.

299815. (111)

Rhizomatous perennial; bunchgrass; stems coarse; leaves wide; leaf height 14". Plot 777, Rietondale Res. Sta., Pretoria. Originally from Gomoti River, Bechuanaland. Rhizomes.

299816. (114)

Rhizomatous perennial; bunchgrass; stems coarse; internodes long; leaf height 15"; early maturing. Plot 780, Rietondale Res. Sta., Pretoria. Originally from Bechuanaland. Rhizomes.

299817. (119)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 788, Rietondale Res. Sta., Pretoria. Originally from Rakops, Bechuanaland. Stolons.

299818. (125)

Stoloniferous perennial; early maturing; stems coarse; leaf height 12". Plot 767, Rietondale Res. Sta., Pretoria. Originally from Klerksdorp, Tvl. Stolons.

299819. (129)

Rhizomatous perennial; stems medium coarse; seedheads very few; foliage blue-green. Plot 772, Rietondale Res. Sta., Pretoria. Originally from Hanertsburg, Tvl. Rhizomes.

299820. (149)

Stoloniferous perennial; stems fine; leaf height 14"; leaves narrow; seedheads very few. Plot 721, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Reneke, C.P. Stolons.

299821. (157)

Stoloniferous perennial; stems medium coarse; leaf height 8"; foliage dark green; seedheads very few. Plot 717, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Renke, C.P. Stolons.

299822. (160)

Rhizomatous perennial; bunchgrass; leaf height 22"; stems coarse. Plot 695, Rietondale Res. Sta., Pretoria. Originally from Krugs River. Seeds.

299823. (161)

Rhizomatous perennial; bunchgrass; stems coarse; foliage dark green. Plot 696, Rietondale Res. Sta., Pretoria. Originally from Middelburg, Tvl. Rhizomes.

299824. (164)

Stoloniferous perennial; stems fine; leaf height 12"; seedheads few. Plot 702, Rietondale Res. Sta., Pretoria. Originally from Lydenburg, Tvl. Stolons.

299825. (182)

Rhizomatous perennial; bunchgrass; stems medium coarse; leaf height 15". Plot 638, Rietondale Res. Sta., Pretoria. Originally from Pienaarsriver, Tvl. Rhizomes.

299826. (185)

Rhizomatous perennial; bunchgrass; stems medium coarse; leaf height 12"; seedheads few. Plot 644, Rietondale Res. Sta., Pretoria. Originally from Leeupoort, Tvl. Rhizomes.

299827. (187)

Rhizomatous perennial; head height 48"; plants erect; heavy seeder. Plot 647, Rietondale Res. Sta., Pretoria. Seeds.

299828. (194)

Stoloniferous perennial; stems medium coarse; leaf height 8". Plot 612, Rietondale Res. Sta., Pretoria. Originally from Somkele, Natal. Stolons.

299829. (245)

Rhizomatous perennial; bunchgrass; leaves sparse; leaf height 8". Open grassland, gravelly soil; 5 mi. north of Pretoria, Tvl., Hwy. N-1. Seeds.

299830. (252) Thabazimbi strain

Stoloniferous perennial; erect, few stolons; leaf height 12"; head height 24". Plants form fair ground cover under controlled grazing. Plat River plain, fine sandy loam; Towoomba Experiment Station, Tvl. Annual rainfall 19", elev. 4,250'. Stolons.

299831. (253) Thabazimbi strain

Stoloniferous perennial. Seeds of PI 299830.

299832. (401)

Commercial seed from Estcourt Research Farm, Estcourt, Natal. Seeds.

299833. (462)

Rhizomatous perennial; vigorous; bunchgrass; leaf height 12"; plants hirsute. Pongola River plain, rocky sandy clay; Khosi Halt road, northwest of Mkuze, Natal. Annual rainfall 22", elev. 600'. Seeds.

299834. (517)

Commercial seed from S. R. Gasson, Marquard, O.F.S. Seeds.

299835. (580)

Rhizomatous perennial; bunchgrass; forms large clumps; leaf height 15", head height 36", foliage blue-green; drought tolerant; heavy seeder. Grootfontein Agricultural College, Middelburg, C.P. Originally from South West Africa. Seeds.

DIGITARIA SWAZILANDENSIS Stent

299836. (203) Local name: Swaziland fingergrass

Stoloniferous perennial; stems fine; adapted to acid soils. Plot 8, Horticultural Research Institute, Pretoria. Originally from Swaziland. Stolons.

299837. (209)

Stoloniferous perennial; stems fine; leaf height 9"; head height 20"; leaves narrow; foliage medium green. Plot 602, Rietondale Res. Sta., Pretoria. Originally from Meerlus, Tvl. Stolons.

299838. (282)

Stoloniferous perennial; stems very fine; leaf height 6"; shade tolerant. Disturbed roadbed, hard red clay; Westfalia Estate, Duiwelskloof, Tvl., elev. 3,400'. Stolons.

299839. (379)

Stoloniferous perennial; stems fine. Estcourt Research Farm, Estcourt, Natal. Annual rainfall 29", elev. 3,800'. Stolons.

299840. (444)

Stoloniferous perennial; stems fine. Heavily grazed grassland, grey sand, Hluhluwe Game Reserve, Natal. Plants form complete ground cover under grazing. Stolons.

DIGITARIA TERNATA (Hochst. ex A. Rich.) Stapf

299841. (485)

Annual bunchgrass; leaf height 12". Disturbed site, sandy soil; 11 mi. east of Mtubatuba on St. Lucia road, Natal. Seeds.

DIGITARIA TRICHOLAENOIDES Stapf

299842. (407)

Rhizomatous perennial; rhizomes short thick; leaf height 12", head height 18"; cold tolerant. Open grassland, Ntabanhlope, Estcourt Research Farm, Estcourt, Natal. Rhizomes.

299843. (523)

Rhizomatous perennial; leaf height 8"; head height 30". Open grassland, 15 mi. east of Bethlehem, O.F.S. on Clarens road. Annual rainfall 30", elev. 5,200'. Rhizomes.

DIGITARIA VALIDA Stent

299844. (19) Giant pangolagrass. Local name: Large fingergrass
Stoloniferous perennial; leaf height 8"; seedheads few. Plot
837, Rietondale Res. Sta., Pretoria. Stolons.

299845. (30)
Stoloniferous perennial; stolons few; stems coarse; leaf height
14". Plot 838, Rietondale Res. Sta., Pretoria. Originally
from Goha Hills, Bechuanaland. Stolons.

299846. (32)
Stoloniferous perennial; stems fine; leaf height 12". Plot
830, Rietondale Res. Sta., Pretoria. Originally from Kenya.
Stolons.

299847. (49)
Stoloniferous perennial; few stolons; leaf height 18"; stems
medium coarse. Plot 439, Rietondale Res. Sta., Pretoria.
Originally from Tsotsoroga Pan, Bechuanaland. Stolons.

299848. (59)
Stoloniferous perennial; stems fine; leaf height 16". Plot
429, Rietondale Res. Sta., Pretoria. Originally from Zarchum
Pan, Kalahari. Stolons.

299849. (62)
Stoloniferous perennial; stems medium coarse; leaf height
12"; seedheads very few. Plot 805, Rietondale Res. Sta.,
Pretoria. Originally from Loliondo, Tanganyika. Stolons.

299850. (64)
Stoloniferous perennial; stems medium coarse; leaf height 6";
leaves broad. Plot 807, Rietondale Res. Sta., Pretoria.
Originally from Mt. Mibeya, Tanganyika. Stolons.

299851. (73)
Stoloniferous perennial; stems fine; leaf height 8". Plot
816, Rietondale Res. Sta., Pretoria. Originally from
Umkulumatsi, East Africa. Stolons.

299852. (88)
Stoloniferous perennial; stems medium coarse; leaf height
18". Plot 803, Rietondale Res. Sta., Pretoria. Originally
from Gomoti River, Bechuanaland. Stolons.

299853. (96)
Stoloniferous perennial; stems fine; leaf height 14". Plot
420, Rietondale Res. Sta., Pretoria. Originally from Kazungula,
Northern Rhodesia. Stolons.

301143. (122)

Stoloniferous perennial; stems fine; leaves broad; foliage dark green; seedheads very few. Plants form good ground cover; outstanding. Plot 764, Rietondale Res. Sta., Pretoria. Originally from Potchefstroom, Tvl. Stolons.

299854. (123)

Stoloniferous perennial; stems medium coarse; leaf height 14"; foliage dark green; seedheads very few. Plants form thick sod; outstanding. Plot 765, Rietondale Res. Sta., Pretoria. Originally from Potchefstroom, Tvl. Stolons.

299855. (126)

Stoloniferous perennial; stems medium coarse; leaf height 6"; foliage blue-green. Plot 768, Rietondale Res. Sta., Pretoria. Stolons.

299856. (128)

Stoloniferous perennial; stolons few; stems coarse; leaf height 8"; foliage blue-green. Plot 771, Rietondale Res. Sta., Pretoria. Originally from Hartjiesveld. Stolons.

299857. (133)

Stoloniferous perennial; stems medium coarse; leaf height 12". Plot 752, Rietondale Res. Sta., Pretoria. Originally from Zeerust, Tvl. Stolons.

299858. (135)

Stoloniferous perennial; stems medium coarse; leaf height 6"; no seedheads. Plot 756, Rietondale Res. Sta., Pretoria. Originally from Malmanioog, Tvl. Stolons.

299859. (136)

Stoloniferous perennial; stems medium coarse; leaf height 12"; seedheads few. Plot 757, Rietondale Res. Sta., Pretoria. Originally from Malmanioog, Tvl. Stolons.

299860. (138)

Stoloniferous perennial; stems medium coarse; leaf height 8"; leaves broad; seedheads few. Plot 760, Rietondale Res. Sta., Pretoria. Stolons.

299861. (142)

Stoloniferous perennial; stems medium coarse; leaf height 14"; early maturing. Plot 736, Rietondale Res. Sta., Pretoria. Originally from Klerksdorp, Tvl. Stolons.

299862. (143)

Stoloniferous perennial; stems medium coarse; leaf height 8"; seedheads few. Plot 737, Rietondale Res. Sta., Pretoria. Originally from East Africa. Stolons.

299863. (144)

Stoloniferous perennial; stems fine; leaf height 9"; seedheads few. Plants form good ground cover. Plot 739, Rietondale Res. Sta., Pretoria. Originally from Du Toitskraal, Tvl. Stolons.

302768. (147)

Stoloniferous perennial; stems fine; leaf height 8"; seedheads very few. Plot 747, Rietondale Res. Sta., Pretoria. Originally from Vryburg, C.P. Stolons.

299864. (153)

Stoloniferous perennial; stems fine; leaf height 8". Plot 712, Rietondale Res. Sta., Pretoria. Originally from Warmbaths, Tvl. Stolons.

299865. (156)

Stoloniferous perennial; stems medium coarse; leaves broad; leaf height 8". Foliage light green. Plot 716, Rietondale Res. Sta., Pretoria. Originally from Settlers, Tvl. Stolons.

299866. (158)

Stoloniferous perennial; stems medium coarse; leaf height 14". Plants form good ground cover. Plot 720, Rietondale Res. Sta., Pretoria. Originally from Schweizer-Reneke, C.P. Stolons.

299867. (159)

Stoloniferous perennial; stems coarse; leaf height 10". Plot 693, Rietondale Res. Sta., Pretoria. Originally from Middelburg, Tvl. Stolons.

299868. (166)

Stoloniferous perennial; stems fine; seedheads very few. Plants form good ground cover. Plot 679, Rietondale Res. Sta., Pretoria. Originally from Rust de Winter, Tvl. Stolons.

299869. (168)

Stoloniferous perennial; stems fine; leaf height 12". Plot 683, Rietondale Res. Sta., Pretoria. Originally from Rust de Winter, Tvl. Stolons.

299870. (169)

Stoloniferous perennial; stems coarse; seedheads few; leaf height 10"; foliage light green. Plot 685, Rietondale Res. Sta., Pretoria. Originally from Rust de Winter, Tvl. Stolons.

299871. (171)

Stoloniferous perennial; stems medium coarse; leaf height 6"; seedheads few. Plants form good ground cover. Plot 691, Rietondale Res. Sta., Pretoria. Originally from Ladysmith, Natal. Stolons.

299872. (172)

Stoloniferous perennial; stems medium coarse; leaf height 8"; seedheads few; foliage light green. Plants form good ground cover. Plot 692, Rietondale Res. Sta., Pretoria. Stolons.

299873. (183)

Stoloniferous perennial; stolons few; stems coarse; leaf height 8"; seedheads few. Plot 639, Rietondale Res. Sta., Pretoria. Originally from Rustenburg Agricultural Station, Rustenburg, Tvl. Stolons.

299874. (188)

Stoloniferous perennial; stems coarse; leaf height 10". Plot 623, Rietondale Res. Sta., Pretoria. Originally from Sabie, Tvl. Stolons.

299875. (191)

Stoloniferous perennial; leaf height 16"; plants leafy; foliage dark green. Plot 631, Rietondale Res. Sta., Pretoria. Originally from Weenen, Natal. Stolons.

299876. (195)

Stoloniferous perennial; stems coarse; leaf height 16"; leaves very broad. Plot 620, Rietondale Res. Sta., Pretoria. Originally from Nata River, Bechuanaland. Stolons.

299877. (198)

Stoloniferous perennial; stems fine; leaf height 6"; foliage light green; seedheads very few. Plot 598, Rietondale Res. Sta., Pretoria. Originally from Brits District, Tvl. Stolons.

299878. (220)

Stoloniferous perennial; stems coarse; leaf height 8"; leaves broad; foliage light green. Plot 559, Rietondale Res. Sta., Pretoria. Originally from Witbank, Tvl. Stolons.

299879. (225)

Stoloniferous perennial; stems medium coarse; leaf height 8"; seedheads very few. Plot 511, Rietondale Res. Sta., Pretoria. Originally from Government House, Pretoria. Stolons.

299880. (249)

Stoloniferous perennial; stolons few; leaf height 12"; head height 48". Open grassland, Plat River plain, 50 mi. north of Pretoria, Hwy. N-1, elev. 4,250'. Stolons.

299881. (250)

Stoloniferous perennial. Seeds of PI 299880.

(313)

Stoloniferous perennial; stems large, wiry; rhizomatous. Disturbed site, hard gravelly soil, 10 mi. north of Nelspruit, Tvl., elev. 3,160'. Stolons.

304872. (325)

Stoloniferous perennial; stolons long, hirsute. Crocodile River plain, hard clay loam, 1 mi. north of Hwy. N-4, Malelane, Tvl. Annual rainfall 20", elev. 1,300'. Stolons.

299882. (331)

Stoloniferous perennial. Seeds of PI 304872. Seeds.

299883. (336)

Stoloniferous perennial; stolons few; stems fine; head height 36". Nahpe road, Kruger National Park. Annual rainfall 22", elev. 1,100'. Stolons.

299884. (369)

Stoloniferous perennial; stems fine; leaf height 8"; foliage light green. Cold tolerant type. Open grassland, sandy soil; 10 mi. northwest of Estcourt, Natal. Annual rainfall 22", elev. 3,300'. Stolons.

299885. (456)

Stoloniferous perennial; rhizomatous; stems medium coarse, soft; leaf sheaths hirsute. Sandy soil, bank of Pongola River, Pongolapoort, Natal. Annual rainfall 26", elev. 400'. Stolons.

(474)

Stoloniferous perennial; stems large; leaf height 14". Plants form large clumps. Weed in sisal field, 1 mi. southwest of Mkuze, Natal. Annual rainfall 21", elev. 500'. Stolons.

299886. (475)

Stoloniferous perennial. Seeds of Col. No. 474.

299887. (480)

Stoloniferous perennial; leaf height 8". Open grassland, clay loam soil; Umfolozi Game Reserve, Natal. Annual rainfall 30", elev. 700'. Stolons.

299888. (561)

Stoloniferous perennial; stems medium coarse; somewhat brittle. Weed along irrigation ditch, 15 mi. northwest of Barkly West, C.P. Stolons.

299889. (642)

Stoloniferous perennial; rhizomatous; leaf height 8"; head height 36"; heavy seeder. Bathurst Research Station, Bathurst, C.P. Stolons.

299890. (643)

Stoloniferous perennial. Seeds of PI 299889.

DIGITARIA SP.

299891. (63)

Stoloniferous perennial; leaf height 12"; stems fine; leaves hirsute. Plot 806, Rietondale Res. Sta., Pretoria. Originally from Loliondo, Tanganyika. Stolons.

299892. (74)

Stoloniferous perennial; stolons few; stems coarse; leaf height 10"; leaves broad. Plot 817, Rietondale Res. Sta., Pretoria. Originally from Zomba Plateau Nyasaland. Stolons.

299893. (146)

Stoloniferous perennial; stems fine; leaf height 6"; seedheads very few. Plot 745, Rietondale Res. Sta., Pretoria. Originally from Vryburg, C.P. Stolons.

299894. (179)

Stoloniferous perennial; stems medium coarse; seedheads very few. Plot 655, Rietondale Res. Sta., Pretoria. Originally from Weenen, Natal. Stolons.

DOLICHOS GIBBOSUS Thunb.

Leguminosae

299895. (661)

Trailing vine; stem woody below; pods 2" long, 4-6 seeded; seeds black. Stutterheim Research Station, Dohne, C.P. Seeds.

DOLICHOS TAUBERTII E. G. Baker

299896. (442)

Twining vine; leaves trifoliate; flowers small; pink; pods flat, 2" long. Open grassland, sandy soil; Hluhluwe Game Reserve, Natal. Annual rainfall 35", elev. 850'. Seeds.

ECHINOCHLOA HOLUBII Stapf

Gramineae

299897. (529)

Perennial bunchgrass; leaf height 24"; head height 36". In streambed, heavy black clay mud; Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

EHRHARTA CALYCINA J. E. Smith

299898. (586) Local name: Perennial veltgrass
 Perennial bunchgrass. Commercial seed, Grootfontein Agricultural
 College, Middelburg, C.P. Seeds.

EHRHARTA ERECTA Lam.

299899. (307)
 Prostrate perennial; rooting at lower nodes; stems very fine,
 weak: foliage sparse. Rocky cliffs below waterfall, Lone
 Creek Falls, 4 mi. east of Sabie, Tvl., elev. 5,600'. Seeds.

ENNEAPOGON CENCHROIDES (Licht.) C. E. Hubb.

299900. (251) Local name: Sourgrass
 Annual or short-lived perennial; erect bunchgrass; leaf
 height 22". Open grassland, Plat River plain, 50 mi. north
 of Pretoria, Hwy. N-1, elev. 4,265'. Seeds.

299901. (264)

Annual or short-lived perennial; foliage sparse; leaf
 height 14"; spikes pointed. Disturbed site, reddish clay,
 bank of Diep River, 20 mi. north of Pietersburg, Tvl.,
 Hwy. N-1. Annual rainfall 23", elev. 4,000'. Seeds.

299902. (265)

Annual or short-lived perennial; foliage sparse. Disturbed
 site, bank of Diep River, 20 mi. north of Pietersburg, Tvl.
 Hwy. N-1. Annual rainfall 23", elev. 4,000'. Seeds.

299903. (297)

Annual or short-lived perennial; bunchgrass; foliage sparse;
 leaf height 4"; head height 18"; heavy seeder; spikes pointed.
 Rocky clay, undisturbed site, Olifants River plain, 10 mi.
 south of Mica, Tvl. Annual rainfall 20", elev. 2,350'. Seeds.

299904. (327)

Annual or short-lived perennial; bunchgrass; leaf height
 14"; heavy seeder. Hard clay, Crocodile River plain, Malelane,
 Tvl. Annual rainfall 20", elev. 1,300'. Seeds.

ENTEROPOGON SIMPLEX (Schum. & Thonn.) A. Chev.

299905. (359)

Perennial bunchgrass, clumps 24" in diameter; leaf height
 15". Foliage extra green in very dry weather. Open
 grassland, rocky clay soil; Hippo Pool road, Kruger
 National Park. Annual rainfall 21", elev. 1,000'. Seeds.

ERAGROSTIS ATHERSTONEI Stapf

299906. (246) Lovegrass

Perennial bunchgrass; erect. Open grassland, bank of Apies
 River; 2 mi. north of Hammanskraal, Tvl., elev. 3,500'. Seeds.

ERAGROSTIS BICOLOR Nees

299907. (551) Lovegrass

Rhizomatous perennial; bunchgrass; forms small clumps; leaf height 3". Open rangeland, heavy reddish clay; 3 mi. east of Dealesville, O.F.S. Annual rainfall 17", elev. 4,200'. Seeds.

ERAGROSTIS CAPENSIS (Thunb.) Trin.

299908. (431) Lovegrass

Perennial bunchgrass; leaf height 12", head height 36". Rocky soil, Hard Table Mountain, Kranskop-Stanger road, Natal. Annual rainfall 35", elev. 3,100'. Seeds.

299909. (681)

Perennial bunchgrass; very few basal leaves; leaf height 8", head height 18". Disturbed site, grey clay loam; 3 mi. west of Keurbooms River near Knysna, C.P., Hwy. N-2. Seeds.

ERAGROSTIS CHLOROMELAS Steud.

299910. (417) Boer lovegrass

Perennial bunchgrass; clumps 12" in diameter; leaf height 6"; head height 24"; heavy seeder. Open grassland, hard dry sand; Mooi River plain, 6 mi. north of Muden, Natal. Annual rainfall 20", elev. 2,800'. Seeds.

299911. (505)

Perennial bunchgrass; leaf height 4". Grazed mountain plateau; 7 mi. south of Harrismith, O.F.S. Annual rainfall 35", elev. 5,500'. Seeds.

ERAGROSTIS CILIANENSIS (All.) Lutati

299912. (421) Lovegrass

Annual bunchgrass; small clumps; head height 6". A common weed. Rocky soil, overgrazed pasture; 10 mi. west of Weenen, Natal. Annual rainfall 21", elev. 2,000'. Seeds.

ERAGROSTIS CURVULA (Schrud.) Nees

299913. (300) Weeping lovegrass

Perennial bunchgrass; plants form small clumps; leaf height 12". Shallow rocky soil, Long Tom pass Mt. Anderson; 7 mi. east of Lydenburg, Tvl., elev. 6,600'. Seeds.

299914. (382) 'Kromdraai'

Perennial bunchgrass. Estcourt Research Farm, Estcourt, Natal. Annual rainfall 29", elev. 3,800'. Seeds.

299915. (420)

Perennial bunchgrass; clumps to 12" in diameter; leaf height 10", head height 24". Disturbed site, hard, rocky, clay; 10 mi. east of Weenen, Natal. Annual rainfall 21", elev. 2,000'. Seeds.

299916. (429)

Perennial bunchgrass; vigorous; clumps to 18" in diameter; head height 36". Disturbed site, roadside ditch, sandy clay; 8 mi. east of Greytown, Natal, elev. 3,400'. Seeds.

299917. (498)

Perennial bunchgrass; leaf height 14"; heavy seeder. Low wet streambed, Van Dillon Farm, Harrismith, O.F.S. Annual rainfall 45", elev. 5,800'. Seeds.

299918. (504)

Perennial bunchgrass; leaf height 12". Open grassland, mountain plateau, 7 mi. south of Harrismith, O.F.S. Annual rainfall 35", elev. 5,500'. Seeds.

299919. (525)

Perennial bunchgrass; heavy seeder. Level terrain, heavy black clay; Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

299920. (531)

Perennial bunchgrass; vigorous; leaf height 18"; head height 36"; outstanding. Bank of Modder River, sandy soil; Glen Agricultural College, Glen, O.F.S. Seeds. Annual rainfall 20", elev. 4,200'. Seeds.

299921. (534) Ermelo type

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S. Seeds.

299922. (572)

Perennial bunchgrass; leaf height 8"; head height 24". Grazed pasture, 6 mi. north of Middelburg, C.P., Hwy. N-1. Annual rainfall 13", elev. 4,300'. Seeds.

299923. (669)

Perennial bunchgrass; leaf height 14"; head height 24". Disturbed site, rocky red clay; 10 mi. southeast of Uitenhage, C.P. Annual rainfall 15". Seeds.

299924. (672)

Perennial bunchgrass; leaf height 14"; head height 36"; plants leafy and vigorous. Disturbed site; 10 mi. northeast of Port Elizabeth, C.P. on Port Elizabeth - Uitenhage road. Annual rainfall 17", elev. 200'. Seeds.

299925. (677)

Perennial bunchgrass; leaf height 30"; head height 36". Waste grounds, Port Elizabeth, C.P., grey sandy loam. Seeds.

299926. (689)

Perennial bunchgrass; plants very leafy with broad leaves; leaf height 15"; head height 30". Waste grounds, Mosselbaai, C.P. Annual rainfall 17", elev. 200'. Seeds.

299927. (726)

Perennial bunchgrass; leaf height 12"; head height 30". Rocky clay soil, Kirstenbosch Botanic Garden, Newlands, C.P. Seeds.

ERAGROSTIS CURVULA VAR. *CONFERTA* Nees

299928. (569) Lovegrass

Perennial bunchgrass; small clumps; head height 24". Disturbed site, open grassland; 5 mi. north of Middelburg, C.P., Hwy. N-1. Annual rainfall 13", elev. 4,300'. Seeds.

299929. (585)

Perennial bunchgrass. Grootfontein Agricultural College, Middelburg, C.P. Seeds.

299930. (607)

Perennial bunchgrass; leaf height 12"; head height 24". Open rangeland, shallow, rocky soil, level terrain; 24 mi. southeast of Jasenville, C.P. Annual rainfall 8", elev. 1,600'. Seeds.

ERAGROSTIS GUMMIFLUA Nees

299931. (357) Lovegrass

Perennial bunchgrass; stems wiry; leaf height 6"; head height 16"; clumps 4-6" in diameter. Shallow sandy rocky soil, scrub timber; Hippo road, Kruger National Park. Annual rainfall 21", elev. 1,100'. Seeds.

ERAGROSTIS HETEROMERA Stapf

299932. (464) Lovegrass

Perennial bunchgrass; leaf height 12"; head height 24"; stems wiry. Disturbed site, rocky soil; 8 mi. northeast of Mkuze, Natal on Jozini Dam road; elev. 800'. Seeds.

ERAGROSTIS HORIZONTALIS Peter

299933. (272) Lovegrass

Weak perennial; bunchgrass; leaf height 6"; few seedheads. Disturbed site along road; 23 mi. north of Louis Trichardt, Tvl. Annual rainfall 18", elev. 2,000'. Seeds.

299934. (341)

Weak perennial; bunchgrass; foliage sparse; leaf height 6", heavy seeder. Plants form small clumps. Firebreak on Nahpe road, hard dry sand; Kruger National Park. Annual rainfall 20", elev. 1,100'. Seeds.

ERAGROSTIS LEHMANNIANA Nees

299935. (275) Lehmann lovegrass

Perennial bunchgrass; leaf height 16". Overgrazed pasture, shallow rocky soil; Mutale River plain, 24 mi. northeast of Louis Trichardt, Tvl. Annual rainfall 16", elev. 2,100'. Seeds.

299936. (537)

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S. Seeds.

299937. (546)

Perennial bunchgrass; leaf height 6"; heavy seeder. Orchard weed, Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

299938. (548)

Perennial bunchgrass; leaf height 6"; heavy seeder. Open disturbed grassland, loamy sand, level terrain; 10 mi. northwest of Bloemfontein, O.F.S., Hwy. N-8. Annual rainfall 19", elev. 4,200'. Seeds.

299939. (565)

Perennial bunchgrass; leaf height 4"; plants form small clumps. Disturbed site along highway, 12 mi. east of Modder River, C.P. Annual rainfall 16", elev. 4,000'. Seeds.

299940. (574)

Perennial bunchgrass; leaf height 6"; head height 12"; heavy seeder. Shallow reddish rocky sandy loam, 3 mi. northeast of Middelburg, C.P. Annual rainfall 13", elev. 4,300'. Seeds.

299941. (602)

Perennial bunchgrass; leaf height 10"; head height 20"; heavy seeder. Open rangeland, rocky shallow soil, hilly terrain; 10 mi. south of Graaf-Reinet, C.P. on Pearston road. Annual rainfall 12", elev. 2,000'. Seeds.

299942. (604)

Perennial bunchgrass; leaf height 6". Disturbed site, shallow rocky clay; 12 mi. southeast of Jasenville, C.P. on Pearston road. Seeds.

299943. (641)

Perennial bunchgrass; leaf height 20"; head height 36"; very leafy. Plot 24, Bathurst Agricultural Station, Bathurst, C.P. Originally from Vaalbank, Tvl. Seeds.

ERAGROSTIS OBTUSA Munro

299944. (535) Lovegrass

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

299945. (559)

Perennial bunchgrass; leaf height 6"; heavy seeder. Weed in corn field, 2 mi. north of Barkly West, C.P. Annual rainfall 15", elev. 4,000'. Seeds.

299946. (573)

Perennial bunchgrass; leaf height 3"; head height 9". Open rangeland, clay loam; 2 mi. northeast of Middelburg, C.P. Annual rainfall 13", elev. 4,300'. Seeds.

299947. (603)

Perennial bunchgrass; leaf height 6"; head height 10". Disturbed site; 12 mi. southeast of Jasenville, C.P. on Pearston road. Annual rainfall 8", elev. 1,600'. Seeds.

299948. (671)

Perennial bunchgrass; clumps small; leaf height 4", head height 8". Pasture, sandy clay, Swartskops River bank, Port Elizabeth - Uitenhage road, C.P. Seeds.

ERAGROSTIS PATENTISSIMA Hack.

299949. (508) Lovegrass

Perennial bunchgrass; leaf height 8"; rhizomatous. Jim Shannon Farm, 21 mi. southwest of Harrismith, O.F.S. Open rangeland, shallow clay loam. Annual rainfall 32", elev. 6,000'. Seeds.

ERAGROSTIS RACEMOSA (Thunb.) Steud.

299950. (506) Lovegrass

Perennial bunchgrass; leaf height 3". Open pasture, clay loam; Jim Shannon Farm, 21 mi. southwest of Harrismith, O.F.S. Annual rainfall 32", elev. 6,000'. Seeds.

ERAGROSTIS SUPERBA Peyr.

299951. (247) Lovegrass. Local name: Heartseed grass.

Perennial bunchgrass; erect. Open rangeland, gravely clay; 10 mi. north of Pretoria, Hwy. N-1, elev. 4,466'. Seeds.

299952. (344)

Perennial bunchgrass; head height 15". Scrub timber, sandy soil; Loop road, Kruger National Park. Annual rainfall 21", elev. 1,050'. Seeds.

299953. (370)

Perennial bunchgrass; leaf height 20"; clumps small. Hilly terrain, sandy soil; 7 mi. northwest of Estcourt, Natal. Annual rainfall 22", elev. 3,300'. Seeds.

299954. (422)

Perennial bunchgrass; leaf height 15"; heavy seeder. Disturbed site, 10 mi. west of Weenen, Natal. Annual rainfall 21", elev. 2,000'. Seeds.

299955. (460)

Perennial bunchgrass; leaf height 12"; heavy seeder. Pongola River bank, Hwy. N-14, Natal. Annual rainfall 24", elev. 500'. Seeds.

299956. (467)

Perennial bunchgrass; leaf height 12"; clumps small. Shallow rocky, red clay; Pongola weather station, Tobotini, Natal. Annual rainfall 21", elev. 400'. Seeds.

299957. (481)

Perennial bunchgrass; leaf height 10"; heavy seeder. Open grassland, clay loam; Umfolozi Game Reserve, Natal. Seeds.

299958. (482)

Perennial bunchgrass; leaf height 6". Open grassland in scrub timber, sandy clay; Umfolozi Game Reserve, Natal. Annual rainfall 30", elev. 600'. Seeds.

299959. (540)

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S. Seeds.

299960. (550)

Perennial bunchgrass; leaf height 8". Disturbed site, level terrain, sandy soil; 15 mi. northwest of Bloemfontein, O.F.S., Hwy. N-8. Annual rainfall 19", elev. 4,200'. Seeds.

299961. (560)

Perennial bunchgrass; leaf height 12"; heavy seeder. Weed in irrigated peach orchard; 15 mi. northwest of Barkly West, C.P. on Vaal River. Annual rainfall 15", elev. 4,000'. Seeds.

ERAGROSTIS TRUNCATA Hack.

299962. (566) Lovegrass

Rhizomatous perennial; plants prostrate; form dense mat. Disturbed roadside; 2 mi. west of Jacobsdal, O.F.S. Annual rainfall 16", elev. 4,000'. Seeds.

(750)

Rhizomatous perennial. Rietondale Res. Sta., Pretoria. Seeds.

ERAGROSTIS SP. nov.

299963. (454)

Bunchgrass; perennial; leaf height 12"; heavy seeder. Level terrain, red clay soil. Between Hwy. N-14 and Pongola River, entrance to Pongolapoort, 12 mi. northeast of Mkuze, Natal. Annual rainfall 21", elev. 500'. Seeds.

ERYTHRINA HUMEANA Spreng.

Leguminosae

299964. (322) Local name: Natal Kaffirboom

Perennial shrub; 3' high; short thorns on stems; dark green leaves; terminal and axillary inflorescence; flowers reddish; seeds light red. Disturbed site, 1 mi. southeast of Louws Creek, Tvl. Seeds.

EULALIA VILLOSA (Thunb.) Nees

Gramineae

299965. (430)

Large perennial bunchgrass; head height 48". Eastern slope of Hard Table Mountain, Greytown - Stanger road, Natal. Annual rainfall 35", elev. 3,100'. Seeds.

EUSTACHYS PASPALOIDES (Vahl) Lanza & Mattei

299966. (553)

Stoloniferous perennial; plants form clumps; leaf height 8". Dry rocky soil; 20 mi. east of Kimberley, C.P. Annual rainfall 16", elev. 4,000'. Seeds.

FINGERHUTHIA AFRICANA Lehm.

299967. (594)

Variable perennial; bunchgrass; very leafy; leaf height 12", head height 20". Open rangeland; 5 mi. north of Cradock, C.P., shallow rocky soil.

FINGERHUTHIA SESLERIAEFORMIS Nees

299968. (413)

Variable perennial; bunchgrass; leaf height 12". Plants deeply embedded in moist sand in stream, hilly terrain; 20 mi. east of Estcourt, Natal. Annual rainfall 30", elev. 3,500', not frost-free. Seeds.

299969. (512)

Variable perennial; bunchgrass; leaf height 8"; head height 36"; cold tolerant. Dry stream bank, 27 mi. southwest of Harrismith, O.F.S., mountainous terrain. Annual rainfall 35", elev. 5,600'. Seeds.

299970. (600)

Variable perennial; bunchgrass, forms large clumps; leaf height 15"; head height 30". Dry stream bank, 21 mi. southwest of Cradock, C.P., mountainous terrain. Annual rainfall 17", elev. 4,000'. Seeds.

GLADIOLUS ALATUS L.

Iridaceae

299971. (704) Gladiolus

Herbaceous ornamental; flowers red. Caledon Wild Flower Garden, Caledon, C.P. Seeds.

299972. (727)

Herbaceous ornamental. Kirstenbosch Botanic Garden, Newlands, C.P. Seeds.

GLADIOLUS BLANDUS Ait.

299973. (702)

Herbaceous ornamental; flowers pink. Caledon Wild Flower Garden, Caledon, C.P. Seeds.

299974. (724) Gladiolus

Herbaceous ornamental. Bloem Erf Nurseries, Stellenbosch, C.P. Seeds.

299975. (728)

Herbaceous ornamental. Kirstenbosch Botanic Garden, Newlands, C.P. Seeds.

GLADIOLUS BREVIFOLIUS Jacq.

299976. (729) Gladiolus

Herbaceous ornamental. Kirstenbosch Botanic Garden, Newlands, C.P. Seeds.

GLADIOLUS CARMINEUS C. H. Wright

299977. (730) Gladiolus

Herbaceous ornamental. Kirstenbosch Botanic Garden, Newlands, C.P. Seeds.

GLADIOLUS GRACILIS Jacq.

299978. (700) Gladiolus

Herbaceous ornamental; flowers greenish-yellow. Caledon Wild Flower Garden, Caledon, C.P. Originally from Caledon District, C.P. Seeds.

GLADIOLUS GRANDIS Thunb.

299979. (705) Gladiolus

Herbaceous ornamental; flowers greenish-yellow. Caledon Wild Flower Garden, Caledon, C.P. Seeds.

GLADIOLUS MORTONIUS Herb. ex Hook.

299980. (701) Gladiolus

Herbaceous ornamental. Caledon Wild Flower Garden, Caledon, C.P. Originally from Mosselbaai, C.P. Seeds.

GLADIOLUS PSITTACINUS Hook.

299981. (707) Parrot gladiolus

Herbaceous ornamental; flowers red. H. Wood, Hermanus, C.P.
Seeds.

299982. (731)

Herbaceous ornamental. Kirstenbosch Botanic Garden, Newlands,
C.P. Seeds.

GLADIOLUS TRISTIS L.

299983. (208) Gladiolus

Aromatic herbaceous ornamental. Horticultural Research Institute,
Pretoria, Tvl. Corms.

299984. (703)

Herbaceous ornamental; flowers creamy white. Caledon Wild
Flower Garden, Caledon, C.P. Seeds.

299985. (721)

Herbaceous ornamental. Bloem Erf Nurseries, Stellenbosch,
C.P. Seeds.

GLYCINE JAVANICA L.

Leguminosae

299986. (403)

Trailing perennial. Commercial seed. Estcourt Research Farm,
Estcourt, Natal. Seeds.

299987. (514)

Trailing perennial. Commercial seed. S. R. Gasson, Marquard,
O.F.S. Seeds.

GOSSYPIUM HERBACEUM VAR. AFRICANUM (Watt) Hutch. & Ghose Malvaceae

299988. (274) Asiatic cotton. Local name: Wild cotton

Herbaceous perennial; branching; height 30". Disturbed soil,
edge of thicket along road, Mutale River plain; 24 mi. north
of Louis Trichardt, Tvl. Annual rainfall 16", elev. 2,100'.
Seeds.

299989. (335)

Herbaceous perennial; branching; height 6'; small bolls.
Waste grounds, Komatipoort, Tvl., Komati River plain. Seeds.

HAEMANTHUS COCCINEUS L.

Amaryllidaceae

299990. (723) Scarlet bloodily. Local name: Cape tulip

Bulbous ornamental. Bloem Erf Nurseries, Stellenbosch, C.P.
Seeds.

HELIANTHUS ANNUUS L.

Compositae

299991. (447) Sunflower

Herbaceous annual; erect; plant height 5'; seedheads 9" in diameter; seeds black. Mkuze River plain, cultivated field, 10 mi. south of Mkuze, Natal. Seeds.

299992. (513)

Herbaceous annual; erect; plant height 5'; seedheads 10" in diameter; seeds black. Cultivated field, 15 mi. east of Bethlehem, O.F.S. Seeds.

HEMARTHRIA ALTISSIMA (Poir.) Stapf & Hubb.

Gramineae

299993. (230)

Stoloniferous perennial; stems medium coarse, reddish; leaf height 20". Plot 136, Rietondale Res. Sta., Pretoria. Originally from eastern Transvaal. Stolons.

299994. (231)

Stoloniferous perennial; stems medium coarse; green; leaf height 17". Plot 138, Rietondale Res. Sta., Pretoria. Originally from Pienaarsriver, Tvl. Stolons.

299995. (232)

Stoloniferous perennial; stems coarse. Plot 135, Rietondale Res. Sta., Pretoria. Stolons.

HIBISCUS DONGOLENSIS Del.

Malvaceae

299996. (268)

Semi-woody shrub; branching; height 24"; petals yellow with purple blotch at base, not distinct petal spot. Disturbed site, hilly terrain, rocky, 10 mi. north of Louis Trichardt, Tvl., Hwy. N-1. Annual rainfall 23", elev. 4,150'. Seeds.

299997. (453)

Semi-woody shrub; branching; height 24"; many capsules. Petals yellow, medium size petal spot at base; pollen orange; 1 row of sepals, 1 row of bracts. Level terrain, reddish loam, Pongola River plain, 10 mi. north of Mkuze, Natal. Annual rainfall 21", elev. 500'. Seeds.

HIBISCUS ENGLERI K. Schum.

299998. (311)

Semi-woody shrub; height 5', branching; petals yellow with dark purple spot at base; capsules 1/2" in diameter. Rocky outcrop on Nel River, 4 mi. north of Nelspruit, Tvl., elev. 3,150'. Seeds.

HIBISCUS PLATYCALYX Mast.

299999. (269)

Erect branching shrub; height 3'; dark green leaves, distinct purple petal spot at base of yellow petals; capsules small. Rocky outcrop, semi-shade, Wylliespoort, 10 mi. north of Louis Trichardt, Tvl., elev. 4,150'. Seeds.

HIBISCUS VITIFOLIUS SUBSP. VULGARIS Brenan & Exell

300000. (350)

Erect herb; branches few; leaves slightly 3-lobed; petals light yellow with deep purple petal spot at base. Shallow sandy granite soil; Kruger National Park.

HIBISCUS SP.

300001. (259)

Shrub; height 6'. Open grassland, Nyl River plain, 49 mi. south of Pietersburg, Tvl., Hwy. N-1, elev. 4,800'. Seeds.

HIBISCUS SP.

300002. (270)

Erect herb; height 24"; branching, dark green leaves. Rocky cliff, semi-shade, disturbed site; 10 mi. north of Louis Trichardt, Tvl., elev. 4,150'. Seeds.

INDIGOFERA CRYPTANTHA Benth.

Leguminosae

300003. (248) Indigo

Erect semi-woody shrub; height 18"; pods curved upward, 5-7 seeded, constricted. Open grassland, 10 mi. north of Pretoria, Tvl., Hwy. N-1, elev. 4,466'. Seeds.

INDIGOFERA SCHIMPERI Jaub. & Spach.

300004. (463)

Erect semi-woody shrub; height 16"; flowers blue; pods terete, about 1" long, perpendicular to raceme. Disturbed rocky soil, 8 mi. north of Mkuze, Natal on Jozini Dam road. Annual rainfall 22", elev. 800'. Seeds.

INDIGOFERA STRICTA L. f.

300005. (623)

Erect shrub; height 20"; seed pods terete, 3/4" long. Disturbed site, 11 mi. northwest of East London, C.P. Annual rainfall 30", elev. 500'. Seeds.

INDIGOFERA TINCTORIA L.

300006. (349)

Erect semi-woody shrub; height 20"; branching near crown; seedpods about 1" long, curved; leaves compound, leaflets 5 pairs and 1 single. Open grassland, hard sandy soil; Kruger National Park. Seeds.

INDIGOFERA SP.

300007. (373)

Prostrate shrub; crown spread 30", height 10". Plants vary in height considerably. Rolling terrain, sandy soil; Onverwacht, 7 mi. northwest of Estcourt, Natal. Annual rainfall 22", elev. 3,300'. Seeds.

IPOMOEA PELLITA Hallier f.

Convolvulaceae

300008. (510)

Twining vine; length 4-8'; leaves simple; petioles long. Reportedly palatable to sheep. Jim Shannon Farm, mountainous terrain, shallow rocky soil; 21 mi. southwest of Harrismith, O.F.S. Seeds.

LESPEDEZA CUNEATA (Dumont) G. Don.

Leguminosae

300009. (406) Chinese bushclover

Short-lived perennial. Commercial seed. Estcourt Research Farm, Estcourt, Natal. Seeds.

LEUCAENA LEUCOCEPHALA (Lam.) de Wit

300010. (432) Lead tree. Caribbean name: Tan-Tan Hawaiian name: Koa Haole

Woody shrub; average height 5'; heavy seeder. Open grassland, 3 mi. north of Stanger, Natal on east side of Hwy. N-14. Seeds.

300011. (674)

Woody shrub; average height 6'. Seedpods borne in clusters, 5-7" long, 1/2-3/4" wide, septate. Sandy soil, semi-shade near stream in Humewood area of Port Elizabeth, C.P. Seeds.

LEUCOSPERMUM NUTANS R. Br.

Proteaceae

300012. (725) Local name: Pincushion

Cultivated ornamental shrub. Mr. H. F. Wood, Hermanus, C.P. Seeds.

LINTONIA NUTANS Stapf

Gramineae

300013. (455)

Stoloniferous perennial; leaf height 12"; head height 24". Entrance to Pongolapoort near Pongola River 10 mi. north of Mkuze, Natal. Annual rainfall 21", elev. 500'. Seeds.

LOTUS CORNICULATUS L.

Leguminosae

300014. (399) Birdsfoot trefoil

Diffuse multi-stemmed perennial. Commercial seed. Estcourt Research Farm, Estcourt, Natal. Seeds.

LOTUS MAJOR Scop.

300015. (398) Local name: Marsh trefoil

Diffuse perennial. Commercial seed. Estcourt Research Farm, Estcourt, Natal. Seeds.

300016. (515)

Diffuse perennial. Commercial seed. S. R. Gasson, Marquard,
O.F.S. Seeds.

LOUDETIA SIMPLEX (Nees) C. E. Hubb.

Gramineae

300017. (315) Local name: Russetgrass

Perennial bunchgrass; leaf height 8"; leaves very narrow; stems
wiry; inflorescence paniculate. Rocky outcrop along stream;
1 mi. east of Sabie, Tvl., elev. 4,900'. Seeds.

LONICERA SP.

Caprifoliaceae

300018. (618) Honeysuckle

Semi-viny shrub; cultivated as ornamental. Blossoms in
clusters, yellow; individual flowers 2-3" long; plants
variegated. Grounds of City Hall, East London, C.P. Cuttings.

LUPINUS ALBUS L.

Leguminosae

300019. (649) White lupine

Erect semi-woody annual. Commercial seed. Chicory Control
Board, Alexandria, C.P. Seeds.

300020. (660)

Erect semi-woody annual. Stutterheim Research Station, Dohne,
C.P. Seeds.

LUPINUS ANGUSTIFOLIUS L.

300021. (402) Bitter blue lupine

Erect annual. Commercial seed. Estcourt Research Farm,
Estcourt, Natal. Seeds.

300022. (651)

Erect annual. Commercial seed. Chicory Control Board,
Alexandria, C.P. Seeds.

300023. (659)

Erect annual. Stutterheim Research Station, Dohne, C.P.
Seeds.

LUPINUS SP.

300024. (650)

Erect annual. Chicory Control Board, Alexandria, C.P.
Seeds.

MEDICAGO POLYMORPHA VAR. VULGARIS (Benth.) Shinnars

300025. (405) California bur-clover

Perennial. Commercial seed. Estcourt Research Farm,
Estcourt, Natal. Seeds.

MELICA RACEMOSA Thunb.

Gramineae

300026. (648)

Perennial bunchgrass; head height 18"; leaves very narrow.
Mixed grass stand, disturbed site; 5 mi. south of Port
Alfred, C.P. Annual rainfall 27", elev. 250'. Seeds.

MICROCHLOA CAFFRA Nees

300027. (312)

Perennial bunchgrass; leaf height 7"; stems fine. Rocky
outcrop on Nel River; 4 mi. north of Nelspruit, Tvl.,
elev. 3,150'. Seeds.

300028. (338)

Perennial bunchgrass; leaf height 4". Granite outcrops, sandy
soil; Kruger National Park. Annual rainfall 22". Seeds.

MISCANTHIDIUM CAPENSE (Nees) Stapf

300029. (621)

Perennial bunchgrass, forms large clumps; leaf height 30".
Fence row near highway; 11 mi. northwest of East London,
C.P. Annual rainfall 30", elev. 500'. Seeds.

300030. (662)

Perennial bunchgrass; head height 6'; leaf height 3'.
Stutterheim Research Station, Dohne, C.P. Seeds.

MISCANTHIDIUM SP.

300031. (599)

Perennial bunchgrass; leaf height 2'; head height 8'; stems
large; leafy. Mountainous terrain, dry stream; 21 mi. south
of Cradock, C.P. Annual rainfall 17", elev. 4,000'. Seeds.

MYRICA CORDIFOLIA L.

Myricaceae

300032. (696) Local name: Waxberry

Sprawling shrub. Forest Station, Stilbaai, C.P. Seeds.

NESTLERA CONFERTA DC.

Compositae

(577)

Prostrate shrub; flowers small. bright yellow; foliage light
green; compact; height 8". Grootfontein Agricultural College,
Middelburg, C.P. Cuttings.

OSTEOSPERMUM MONILIFERUM L.

300033. (695) Local name: Bietou

Sprawling shrub to 8' high. Forest Station, Stilbaai, C.P.
Seeds.

PANICUM ANTIDOTALE Retz.

Gramineae

300034. (638) Blue panicgrass

Perennial bunchgrass; stems medium coarse; very leafy; leaf height 4'; head height 5'; excellent seed retaining capacity. Plot 43, Bathurst Agricultural Station, Bathurst, C.P. Originally from Argentina. Seeds.

PANICUM COLORATUM L.

300035. (254) Panicgrass. Local name: Small buffalograss
Perennial bunchgrass. Grazing plots, Towoomba Experiment Station, Plat River plain, elev. 4,250'. Seeds.

300036. (333)

Perennial bunchgrass; heavy seeder; plants form large clumps; leaf height 24"; semi-erect, rooting at basal nodes. Komati River plain dark red clay loam. Seeds.

300037. (448)

Perennial bunchgrass; stems coarse; prostrate with few stolons, rooting at all nodes; leaf height 24". Grazed pasture; 3 mi. north of Mkuze, Natal. Annual rainfall 24", elev. 500'. Stolons.

300038. (450)

Perennial bunchgrass with few stolons; leaf height 15". Grazed pasture, 8 mi. north of Mkuze, Natal. Annual rainfall 24", elev. 500'. Stolons.

300039. (595)

Perennial bunchgrass; head height 24"; leaf height 8". Disturbed site, shallow rocky soil; 5 mi. north of Cradock, C.P. Annual rainfall 12", elev. 2,400'. Seeds.

300040. (610)

Perennial bunchgrass; leaf height 14"; head height 30". Level terrain, pasture, 10 mi. southeast of Somerset East, C.P. Annual rainfall 20", elev. 2,500'. Seeds.

300041. (635)

Perennial bunchgrass; erect; stems fine; very leafy; leaf height 28"; head height 48". Plot 29, Bathurst Agricultural Station, Bathurst, C.P. Originally from Rustenburg, Tvl. Seeds.

300042. (636)

Perennial bunchgrass; erect; stems fine; leafy; leaves very narrow; leaf height 20"; head height 30". Plot 31, Bathurst Agricultural Station, Bathurst, C. P. Seeds.

300043. (639)

Perennial bunchgrass; stems fine; leaf height 28"; head height 36"; excellent seed retaining capacity. Plot 32, Bathurst Agricultural Station, Bathurst, C.P. Seeds.

PANICUM DEUSTUM Thunb.

300044. (768) Panicgrass

Perennial bunchgrass. Rietondale Res. Sta., Pretoria, Tvl.
Seeds.

PANICUM INFESTUM Anderss.

300045. (290)

Perennial bunchgrass; heavy seeder; leaf height 24". Disturbed site, Letsitele Bridge on Great Letaba River; 15 mi. south of Tzaneen, Tvl. Annual rainfall 25", elev. 1,850'. Seeds.

PANICUM LAEVIFOLIUM Hack.

(493)

Annual bunchgrass; leaf height 30"; seedheads terminal. Weed in corn field, 28 mi. east of Bethlehem, O.F.S., Hwy. N-5. Annual rainfall 30", elev. 5,600'. Seeds.

PANICUM MAXIMUM Jacq.

300046. (255) Guineagrass. Local name: Buffalograss

Perennial bunchgrass; Plat River plain; Towoomba Experiment Station, Towoomba, Tvl. Annual rainfall 20", elev. 4,250'. Seeds.

300047. (277)

Perennial bunchgrass. Level terrain, gravelly soil, overgrazed pasture; 15 mi. west of Louis Trichardt, Tvl. Annual rainfall 28", elev. 3,100'. Seeds.

300048. (292) Rakob strain

Perennial bunchgrass; vigorous; leaf height 40"; head height 60"; inflorescence 18" long. Disturbed site, Ramadiepa River, Duiwelskloof, Tvl. Annual rainfall 27", elev. 2,750'. Seeds.

300049. (347)

Perennial bunchgrass; leaf height 36". Open grassland along Loop road, Kruger National Park. Annual rainfall 21", elev. 1,050. Seeds.

300050. (363)

Perennial bunchgrass. Weed in field; 5 mi. north of Nelspruit, Tvl. Seeds.

300051. (616)

Perennial bunchgrass; leaf height 36"; head height 48"; vigorous. Waste grounds, sandy soil, East London, C.P. Annual rainfall 30", elev. 150'. Seeds.

300052. (631)

Perennial bunchgrass; leaf height 32"; head height 48"; stems medium coarse; very leafy and succulent. Plot 8, Bathurst Agricultural Station, Bathurst, C.P. Annual rainfall 27", elev. 850". Originally from Swaziland. Seeds.

300053. (632)

Perennial bunchgrass; leaf height 24"; head height 36"; stems fine; medium green. Plot 12, Bathurst Agricultural Station, Bathurst, C.P. Originally from Kazangula. Seeds.

300054. (633)

Perennial bunchgrass; leaf height 24"; head height 36"; stems medium coarse. Plot 14, Bathurst Agricultural Station, Bathurst, C.P. Originally from Nelspruit, Tvl. Seeds.

300055. (634)

Perennial bunchgrass; erect, very little branching; leaf height 50"; medium size clumps; stems 1/2" in diameter at base. Plot 18, Bathurst Agricultural Station, Bathurst, C.P. Originally from East Africa. Seeds.

300056. (637)

Perennial bunchgrass; erect, plants very uniform, leafy; stems fine; leaf height 48"; head height 60". Outstanding for yield. Plot 50, Bathurst Agricultural Station, Bathurst, C.P. Seeds.

300057. (640)

Perennial bunchgrass; erect; leaves broad; leafy; stems medium coarse. Plot 44, Bathurst Agricultural Station, Bathurst, C.P. Seeds.

PANICUM STAPFIANUM Fourc.

300058. (524) Panicgrass

Perennial bunchgrass; leaf height 12". Modder River plain, heavy clay; Glen Agricultural College, Glen, O.F.S. Seeds.

300059. (767)

Perennial bunchgrass. Rietondale Res. Sta., Pretoria, Tvl. Originally from Blaauberg, Tvl. Seeds.

PANICUM SP.

300060. (364)

Perennial bunchgrass. Hilly terrain, pasture; 3 mi. north of Nelspruit, Tvl. Seeds.

PASPALUM DILATATUM Poir.

300061. (383) Dallisgrass

Perennial bunchgrass. Selection 56-19. Estcourt Research Farm, Estcourt, Natal. Seeds.

300062. (384)

Perennial bunchgrass. Selection 56-34. Estcourt Research Farm, Estcourt, Natal. Seeds.

300063. (385)

Perennial bunchgrass. Selection 56-56. Estcourt Research Farm, Estcourt, Natal. Seeds.

300064. (386)

Perennial bunchgrass. Selection 56-63. Estcourt Research Farm, Estcourt, Natal. Seeds.

300065. (387)

Perennial bunchgrass. Selection 56-71. Estcourt Research Farm, Estcourt, Natal. Seeds.

300066. (388)

Perennial bunchgrass. Selection 56-89. Estcourt Research Farm, Estcourt, Natal. Seeds.

300067. (389)

Perennial bunchgrass. Selection 56-125. Estcourt Research Farm, Estcourt, Natal. Seeds.

300068. (390)

Perennial bunchgrass. Selection 56-129. Estcourt Research Farm, Estcourt, Natal. Seeds.

300069. (391)

Perennial bunchgrass. Selection 56-155. Estcourt Research Farm, Estcourt, Natal. Seeds.

300070. (392)

Perennial bunchgrass. Selection 56-156. Estcourt Research Farm, Estcourt, Natal. Seeds.

300071. (393)

Perennial bunchgrass. Selection 56-162. Estcourt Research Farm, Estcourt, Natal. Seeds.

300072. (394)

Perennial bunchgrass. Selection 56-168. Estcourt Research Farm, Estcourt, Natal. Seeds.

300073. (395)

Perennial bunchgrass. Selection 56-170. Estcourt Research Farm, Estcourt, Natal. Seeds.

300074. (396)

Perennial bunchgrass. Selection 56-172. Estcourt Research Farm, Estcourt, Natal. Seeds.

300075. (397)

Perennial bunchgrass. Selection 56-187. Estcourt Research Farm, Estcourt, Natal. Seeds.

300076. (494)

Perennial bunchgrass; clumps 15" in diameter; leaf height 8". Disturbed site, 20 mi. west of Harrismith, O.F.S. Annual rainfall 30", elev. 5,650'. Seeds.

300077. (680)

Perennial bunchgrass. Disturbed site, hilly terrain, sandy clay; 2 mi. east of Knysna, C.P., Hwy. N-2. Seeds.

PASPALUM NOTATUM Fluegge

300194. (289) Bahiagrass

Rhizomatous perennial. Packed red clay soil in old roadbed, Westfolia Estate, Duiwelskloof, Tvl., elev. 3,000'. Rhizomes.

300078. (527)

Rhizomatous perennial. Waste land, heavy black clay, Glen Agricultural College, Glen, O.F.S. Rhizomes.

PASPALUM URVILLEI Steud.

300079. (617) Vaseygrass

Perennial bunchgrass; heavy seeder; leaf height 24"; head height 40". Waste grounds, East London, C.P. Annual rainfall 30", elev. 200'. Seeds.

PASPALUM VAGINATUM Swartz

300080. (411) Local name: Buffaloquick grass

Stoloniferous perennial; long strong stolons; leaf height 12". Dry streambed in silt deposit; 20 mi. east of Estcourt, Natal. Annual rainfall 30", elev. 3,500'. Stolons.

PELTOPHORUM AFRICANUM Sond.

Leguminosae

300081. (258) Local name: African wattle

Tree with yellow blossoms. Nyl River plain, brown clay; 55 mi. south of Pietersburg, Tvl., Hwy. N-1. Seeds.

PENNISETUM CLANDESTINUM Hochst. ex Chiovenda

Gramineae

300082. (495) Kikuyugrass

Stoloniferous perennial with rhizomes. Van Dillon farm, Harrismith, O.F.S. Annual rainfall 45", elev. 5,800'. Stolons.

300083. (652)

Stoloniferous perennial. Waste grounds, Alexandria, C.P.
Stolons.

PENNISETUM MACROURUM Trin.

300084. (239)

Rhizomatous perennial; leaf height 30"; leaf blades rolled.
Plot 147, Rietondale Res. Sta., Pretoria. Originally from Elgin,
C.P. Seeds.

300085. (240)

Rhizomatous perennial; head height 48". Plot 148, Rietondale
Res. Sta., Pretoria. Originally from Witbank, Tvl. Seeds.

PENNISETUM PURPUREUM Schum.

300086. (291) Elephantgrass, Napiergrass

Perennial bunchgrass; plants 16' high: dark green foliage.
Silt deposit in flowing stream, Westfalia Estate, Duiwelskloof,
Tvl. Cuttings.

PENNISETUM SETACEUM (Forsk.) Chiov.

300087. (233)

Perennial bunchgrass; leaf height 24"; head height 36"; racemes
8"; inflorescence blue-white. Plot 200, Rietondale Res. Sta.,
Pretoria. Originally from USA. Seeds.

PENNISETUM TYPHOIDES (Burn. f.) Stapf & Hubbard

300088. (533) Local name: Pearl millet

Annual bunchgrass. Glen Agricultural College, Glen, O.F.S.
Seeds.

PENNISETUM UNISSETUM (Nees) Benth.

304750. (410) Drakensburg silkygrass

Rhizomatous perennial; head height 48". Rocky soil, mountainous
terrain; Springfontein de Hoek, Estcourt Research Farm,
Estcourt, Natal. Annual rainfall 35", elev. 4,500'. Rhizomes.

PENNISETUM SP.

302751. (409) Wassenaar strain

Rhizomatous bunchgrass; culms 1/2" in diameter at base, 9'
high. Plants form dense stand; used in siltbed stabilization.
Springfontein de Hoek, Estcourt Research Farm, Estcourt, Natal.
Cuttings.

PHASEOLUS VULGARIS L.

Leguminosae

300089. (375) Common bush bean, var. 'Black Wonder'

Commercial seed. Estcourt, Natal. Seeds.

300090. (376) Common bush bean, var. 'victory'

Commercial seed. Estcourt, Natal. Seeds.

300091. (377) Climbing bean, var. 'Everbearing'
Commercial seed. Estcourt, Natal. Seeds.

PORTULACARIA AFRICA Jacq.

Portulacaceae

300092. (576)

Succulent perennial; 10-15" high; branching. Browse plant in South Africa; ornamental in Australia; not frost resistant. Grootfontein Agricultural College, Middelburg, C.P. Seeds.

PSORALEA OBTUSIFOLIA DC.

Leguminosae

300093. (562)

Perennial climbing vine. Disturbed site, 15 mi. northwest of Barkly West, C.P. Annual rainfall 15", elev. 4,000'. Seeds.

PTEROCARPUS ANGOLENSIS DC.

300094. (310) Local name: Kiaat, Rhodesian teak

Deciduous tree; leaves pinnately compound; flowers yellow; seeds winged. Crocodile River plain, 3 mi. north of Nelspruit, Tvl. Seeds.

PUERARIA LOBATA (Willd.) Ohwi

300095. (404) Kudzu

Perennial vine. Commercial seed. Estcourt Research Farm, Estcourt, Natal. Seeds.

PUNICA GRANATUM L.

Punicaceae

300096. (490) Local name: Dwarf pomegranate

Perennial ornamental; 15" high; fruits edible, 1 1/2" in diameter. Seeds presented by Mr. L. Andrews, Empangeni, Natal. Seeds.

RHYNCHELYTRUM REPENS (Willd.) C. E. Hubb.

Gramineae

300097. (558) Local name: Redtop

Annual bunchgrass; leaf height 6"; leafy. Shallow rocky soil, disturbed site; 5 mi. east of Barkly West, C.P. Annual rainfall 15", elev. 4,000'. Seeds.

RHYNCHOSIA HIRSUTA Eckl. & Zeyh.

Leguminosae

300098. (625)

Perennial twining herb; inflorescence terminal. Open grassland, 20 mi. southwest of East London, C.P. Annual rainfall 30", elev. 500'. Seeds.

RHYNCHOSIA MINIMA (L.) DC. VAR. MINIMA

300099. (656)

Perennial vine; leaves trifoliate; blossoms yellow; pods 3/4" long, 2-seeded; black seeds. Railroad siding, 5 mi. southwest of Alexandria, C.P. Seeds.

RHYNCHOSIA MINIMA (L., DC. VAR. PROSTRATA (Harv.) Meikle.

300100. (260)

Perennial vine. Bank of Nyl River, 20 mi. north of Naboomspruit, Tvl., Hwy. N-1. Seeds.

RHYNCHOSIA SUBLOBATA (Schum.) Meikle

300101. (461)

Perennial vine; 25' long; leaves trifoliolate; flowers yellow, several per raceme; seeds black. Growing along irrigation ditch on Mgut road, 2 mi. west of Pongola, Natal.

RHYNCHOSIA TOTTA (Thunb.) DC.

300102. (628)

Perennial herb; leaves trifoliolate; pods 1/2" long; seeds dark brown. Disturbed site, shallow rocky, doleritic soil, 40 mi. southeast of East London, C.P. Annual rainfall 25", elev. 500'. Seeds.

RUBUS PINNATUS Willd.

Rosaceae

(305)

Semi-prostrate perennial; stems branching. Open grassland along stream; Love Creek Falls, Sabie, Tvl., elev. 5,600'. Cuttings.

300103. (655)

Semi-prostrate perennial; stems branching; flowers mauve. Railroad bank, 5 mi. southwest of Alexandria, C.P. Cuttings.

RUBUS RIGIDUS DC.

300104. (622)

Semi-viny perennial; branching; flowers mauve, terminal. Roadbank, 11 mi. northwest of East London, C.P. Cuttings.

RUBUS SP.

(285)

Semi-erect perennial. Open grassland, edge of thicket sandy soil. Westfalia Estate, elev. 3,000'. Duiwelskloof, Tvl. Cuttings.

SCHISMUS INERMIS (Stapf) C. E. Hubb

Gramineae

300105. (676)

Weak perennial bunchgrass; leaf height 10", head height 15"; leaves basal, narrow. Open Eucalyptus thicket, sandy soil; Port Elizabeth, C.P. Seeds.

SCHOTIA BRACHYPETALA Sond.

Leguminosae

300106. (753) Local name: Tree fuchsia

Deciduous ornamental shade tree, crown well-shaped; flowers borne in clusters, red. Rietondale Res. Sta., Pretoria. Seeds.

SENECIO ACHILLEIFOLIUS DC.

Compositae

302758. (414)

Erect herb 8" high; flowers yellow; leaves very short and narrow. Wet streambed, 20 mi. east of Estcourt, Natal. Cuttings.

SESAMUM ALATUM Thonn.

Pedaliaceae

300107. (342)

Erect herb, 36" high; pods split almost entire length. Disturbed site along firebreak sandy soil; Kruger National Park. Seeds.

SESAMUM TRIPHYLLUM Welw. ex Aschers

300108. (261)

Erect herb, 40" high; blossoms blue; pods split to below middle. Bank of Nyl River, 20 mi. north of Naboomspruit, Tvl., elev. 4,700'. Seeds.

SETARIA CHEVALIERI Stapf & Hubb.

Gramineae

(306)

Perennial bunchgrass; head height 8'; basal leaves wide; heavy seeder. Lone Creek Falls, Sabie, Tvl. Seeds.

SETARIA FLABELLATA Stapf

300109. (536)

Perennial bunchgrass. Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

SETARIA NEGLECTA De Wit

300110. (608)

Perennial bunchgrass; leaf height 12"; head height 24". Open grassland, 10 mi. southeast of Somerset East, C.P. Annual rainfall 20", elev. 2,500'. Seeds.

SETARIA WOODII Hack.

300111. (451)

Perennial bunchgrass; leaf height 24"; head height 36". Open grassland. Mkuze River plain; 8 mi. north of Mkuze, Natal. Annual rainfall 24", elev. 500'. Seeds.

300112. (528)

Perennial bunchgrass; leaf height 12". Dry streambed, heavy black clay. Glen Agricultural College, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

SETARIA SP.

300113. (381)

Rhizomatous perennial; leaf height 12". Estcourt Research Farm, Estcourt, Natal. Annual rainfall 29", elev. 3,800'. Seeds.

300114. (688)

Perennial bunchgrass; leaf height 15"; head height 24". Waste grounds, Mosselbaai, C.P. Annual rainfall 17", elev. 200'. Seeds.

SORGHUM BICOLOR (L.) Moench.

300115. (446) Sorghum

Annual; plant height 6'. Cultivated field, 1 mi. northeast of Hluhluwe Game Reserve. Annual rainfall 37", elev. 600'. Seeds.

SORGHUM VERSICOLOR Anderss.

300116. (476) Black sudangrass

Perennial bunchgrass; forms large clumps; head height 36". Weed in sisal field, 1 mi. south of Mkuze, Natal. Seeds.

SORGHUM VERTICILLIFLORUM (Steud.) Stapf

300117. (262)

Annual or perennial bunchgrass; head height 5'. Bank of Nyl River, 20 mi. north of Naboomspruit, Tvl. Seeds.

300118. (294)

Annual or perennial bunchgrass; head height 9'; stems 1/4" in diameter at base; leaf blades narrow, 24" long; nodes 10". Letsitele bridge, Great Letaba River, 15 mi. south of Tzaneen, Tvl. Seeds.

300119. (329)

Annual or perennial bunchgrass; 8' high. Hard red clay, Crocodile River plain; 2 mi. south of Malelane, Tvl. Annual rainfall 20", elev. 1,300'. Seeds.

300120. (433)

Annual or perennial bunchgrass; 6' high; seeds black. Dark grey sand, north bank of Tugela River; 5 mi. north of Darnall, Natal, Hwy. N-14. Annual rainfall 40", elev. 400'. Seeds.

SORGHUM SP.

300121. (372)

Bunchgrass; heavy seeder; leaf height 18"; head height 48". Onverwacht, 7 mi. northwest of Estcourt, Natal. Annual rainfall 22", elev. 3,300'. Seeds.

SPOROBOLUS FIMBRIATUS Nees

300122. (575) Dropseed

Perennial bunchgrass; leaf height 12"; head height 24". Open rangeland, shallow rocky clay loam; 6 mi. east of Middelburg, C.P. Annual rainfall 13", elev. 4,300'. Seeds.

300123. (598)

Perennial bunchgrass; leaf height 12"; head height 24". Disturbed site, 21 mi. south of Cradock, C.P. Annual rainfall 17", elev. 4,000'. Seeds.

SPOROBOLUS IOCLADOS VAR. *USITATUS* (L.) Stent

300124. (352)

Stoloniferous perennial; few stolons; leaf height 3". Open grassland, low wet site, grey sandy clay; Skukuza rest camp, Kruger National Park. Annual rainfall 21", elev. 1,000'. Seeds.

SPOROBOLUS NITENS Stent

300125. (353)

Perennial bunchgrass; leaf height 4"; head height 12". Open grassland, shallow grey sandy soil, poorly drained; Kruger National Park. Annual rainfall 21", elev. 1,050'. Seeds.

SPOROBOLUS VIRGINICUS (L.) Kunth

300126. (487) Seashore dropseed

Rhizomatous perennial. Indian Ocean beach, St. Lucia, Natal. Stolons.

STENOTAPHRUM SECUNDATUM (Walt.) Kuntze

300127. (207) St. Augustinegrass

Stoloniferous perennial with rhizomes. Horticultural Research Institute, Pretoria. Seeds.

300128. (434)

Stoloniferous perennial with rhizomes. Disturbed site, 8 mi. north of Tugela River, Hwy. N-14. Stolons.

300129. (626)

Stoloniferous perennial with rhizomes. Disturbed site, 30 mi. southwest of East London, C.P. Annual rainfall 31", elev. 500'. Stolons.

300130. (668)

Stoloniferous perennial sodgrass; vigorous. Low wet site near highway, 10 mi. southeast of Uitenhage, C.P. on Port Elizabeth road. Stolons.

STEREOCHLAENA CAMERONII (Stapf) Pilg.

300131. (284) Local name: Gilstongrass

Stoloniferous perennial; head height 33"; stems fine. Sand pits, Westfalia Estate, Duiwelskloof, Tvl. Stolons.

STIPAGROSTIS ZEYHERI (Nees) de Winter SUBSP. *BARBATA* (Stapf) de Winter

300132. (673)

Bunchgrass; leaf height 15"; head height 24". Disturbed site along Port Elizabeth - Uitenhage road, 15 mi. northeast of Port Elizabeth, C.P. Seeds.

STIZOLOBIUM DEERINGIANUM Bort

Leguminosae

300133. (516) Velvetbean

Annual. Commercial seed. S. R. Gasson, Marquard, O.F.S.

Seeds.

STYLOSANTHES SUNDAICA Taub.

300134. (657)

Perennial herb. Stutterheim Agricultural Station, Dohme, C.P.

Seeds.

TEPHROSIA PURPUREA (L.) Pers.

300135. (360)

Perennial herb; plants 20" high; heavy seeder. Shallow sandy clay loam, in thick stand of grass; Hippo Pool road, Kruger National Park. Annual rainfall 21", elev. 1,000'. Seeds.

TETRACHNE DREGEI Nees

Gramineae

300136. (491)

Perennial bunchgrass; leaf height 16". Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall 26", elev. 5,600'. Seeds.

300137. (579)

Perennial bunchgrass. Grootfontein Agricultural College, Middelburg, C.P. Seeds.

TETRAGONIA ARBUSCULA Fenzl. ex Harvey & Sond.

Aizoaceae

300138. (593)

Perennial shrub; leaves very small; seeds winged. Grootfontein Agricultural College, Middelburg, C.P. Annual rainfall 13", elev. 4,300'. Seeds.

TETRAPOGON MOSSAMBICENSIS (K. Schum.) Chippind. ex B. S. Fisher

Gramineae

300139. (452)

Stoloniferous perennial; leaf height 14"; head height 30"; heavy seeder. Mkuze River plain, 8 mi. north of Mkuze, Natal. Annual rainfall 24", elev. 500'. Seeds.

THEMEDA TRIANDRA Forsk.

300140. (299) Rooigrass. Local name: Red grass

Perennial bunchgrass; leaf height 12"; head height 36".

Mountainous terrain, 6 mi. east of Lydenburg, Tvl.; shallow rocky soil, elev. 6,500'. Seeds.

300141. (371)

Perennial bunchgrass; leafy; head height 48". Sandy rocky soil; Onverwacht, 7 mi. northwest of Estcourt, Natal. Annual rainfall 22", elev. 3,300'. Seeds.

THESIIUM TRIFLORUM L. f.

Santalaceae

300142. (612)

Semi-viny; height 2'; stems without spines; fruits not lobed, deep orange. Open pasture, 2 mi. west of Adelaide, C.P. Seeds.

TRICHILIA EMETICA Vahl

Meliaceae

300143. (309) Local name: Cape mahogany

Tree to 60' high; more or less evergreen with compound leaves 6-9" long; leaflets 5-6 pairs. Dark green foliage; seeds with red aril and black spot. Sandy soil, Crocodile River, 3 mi. north of Nelspruit, Tvl. Seeds.

TRICHOPTERYX DREGEANA Nees

Gramineae

300144. (288)

Slender straggling perennial; very fine stems; leaves short and narrow. Rock crevices in deep shade on bank of Ramadiepa River; Duiwelskloof, Tvl. Stems.

TRIFOLIUM AFRICANUM Seringe in DC.

Leguminosae

300145. (509)

Perennial; plants prostrate; maroon blossoms; plants occur in patches. Grazed pasture, mountainous terrain; shallow clay loam. Jim Shannon farm, 21 mi. southwest of Harrismith, O.F.S. Annual rainfall 32", elev. 6,000'. Seeds.

300146. (530)

Perennial; plants prostrate; sandy soil on bank of Modder River, Glen, O.F.S. Annual rainfall 20", elev. 4,200'. Seeds.

TRIFOLIUM BURCHELLIANUM Seringe in DC.

300147. (588)

Perennial. Grootfontein Agricultural College, Middelburg, C.P. Seeds.

300148. (658)

Perennial. Stutterheim Research Station, Dohne, C.P. Seeds.

TRIFOLIUM PRATENSE L.

300149. (496) Red Clover

Perennial; leaf height 12"; vigorous. Irrigated meadow, Van Dillon farm, Harrismith, O.F.S. Annual rainfall 45", elev. 5,800'. Seeds.

300150. (518) var. Kenland

Perennial. Commercial seed. S. R. Gasson, Marquard, O.F.S. Seeds.

300151. (519) var. Montgomery

Perennial. Commercial seed. S. R. Gasson, Marquard, O.F.S. Seeds.

300152. (520) Local name: Giant Red Clover
Perennial. Commercial seed. S. R. Gasson, Marquard, O.F.S.
Seeds.

300153. (521) Local name: Chilean Red
Perennial. Commercial seed. S. R. Gasson, Marquard, O.F.S.
Seeds.

300154. (544)
Perennial. Commercial seed. Glen Agricultural College, Glen,
O.F.S. Seeds.

300158. (587)
Perennial. Breeding line R-69. Grootfontein Agricultural College,
Middelburg, C.P. Seeds.

300159. (589)
Perennial. Breeding line 53. Grootfontein Agricultural College,
Middelburg, C.P. Seeds.

300160. (590)
Perennial. Breeding line 56. Grootfontein Agricultural College,
Middelburg, C.P. Seeds.

300161. (591)
Perennial. Breeding line 65. Grootfontein Agricultural College,
Middelburg, C.P. Seeds.

300162. (592)
Perennial. Breeding line 66. Grootfontein Agricultural College,
Middelburg, C.P. Seeds.

TRIFOLIUM REPENS L.

300155. (497) White clover. Local name: New Zealand white
Perennial; vigorous; leaf height 10". Irrigated meadow, Van
Dillon farm, Harrismith, O.F.S. Seeds.

300156. (522)
Perennial. Commercial seed. S. R. Gasson, Marquard, O.F.S.
Seeds.

300157. (543) Local name: New Zealand white clover
Perennial. Commercial seed. Glen Agricultural College, Glen,
O.F.S. Seeds.

UROCHLOA MOSAMBICENSIS (Hack.) Dandy

Gramineae

300163. (266) Local name: Buffelgrass
Perennial, semi-decumbent; heavy seeder; leafy. Disturbed
site, Diep River, 20 mi. north of Pietersburg, Tvl., Hwy.
N-1, elev. 4,000'. Seeds.

300164. (273)

Stoloniferous perennial; prostrate. Low wet site, Mutale River flood plain, 24 mi. north of Louis Trichardt, Tvl. Annual rainfall 16"; elev. 2,100'. Stolons.

300165. (293)

Rhizomatous perennial forming dense sod; leaf height 14". Sandy clay loam, bank of Great Letaba River; 15 mi. south of Tzaneen, Tvl. Seeds.

300166. (326)

Rhizomatous perennial; leaf height 15"; heavy seeder. Sandy soil; Crocodile River; Malelane, Tvl. Annual rainfall 20", elev. 1,300'. Seeds.

(439)

Stoloniferous perennial. Sandy soil, hilly terrain, Hluhluwe Game Reserve, Natal. Annual rainfall 37", elev. 600'. Stolons.

UROCHLOA SP.

300167. (271)

Stoloniferous perennial with broad leaves. Disturbed site, rocky, gravelly clay; 23 mi. north of Louis Trichardt, Tvl. Annual rainfall 18", elev. 2,000'. Stolons.

300168. (380)

Stoloniferous perennial; broad leaves. Sandy rocky soil, hilly terrain. Estcourt Research Farm, Estcourt, Natal. Annual rainfall 26", elev. 3,800'. Stolons.

VICIA FABA L.

Leguminosae

300169. (374) Broadbean

Edible bean. Commercial seed. Estcourt, Natal. Seeds.

VICIA SP.

300170. (706)

Woody shrub, branching; 40" high; pods 3" long, 1/2" wide; flowers mauve. Caledon Wild Flower Garden, Caledon, C.P. Seeds.

VIGNA SINENSIS (Torner) Savi

300171. (499) Common cowpea 'New Era'

Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall 26", elev. 5,400'. Seeds.

300172. (500) 'Witzenborg'

Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall 26", elev. 5,400'. Seeds.

300173. (501) 'Bechuanaland White'
Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall
26", elev. 5,400'. Seeds.

300174. (502) 'Victor'
Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall
26", elev. 5,400'. Seeds.

300175. (503) 'Saunders Upright'
Bethlehem Research Station, Bethlehem, O.F.S. Annual rainfall
26", elev. 5,400'. Seeds.

VIGNA WILMSII Burt-Davy

300176. (412) Cowpea
Perennial twining vine; leaves trifoliate; flowers yellow;
plants heavily nodulated. Running streambed, 20 mi. east of
Estcourt, Natal. Annual rainfall 30", elev. 3,500'. Seeds.

VIRGILIA OROBOIDES (Berg.) Salter

300177. (709)
Ornamental shrub. H. F. Wood, Hermanus, C.P. Seeds.

WATSONIA ALETROIDES Ker. - Gawl.

Iridaceae

300182. (715)
Cultivated ornamental. Commercial stock. Bloem Erf Nursery,
Stellenbosch, C.P. Corms.

WATSONIA ANGUSTA Ker.

300183. (687)
Cultivated ornamental. Plants 40" high; flowers light yellow.
Sandstone soil, pH 4.5. Outiniqua Research Station, George,
C.P. Corms.

WATSONIA HUMILIS Mill.

300184. (708)
Cultivated ornamental; requires 3 years to blossom; flowers
orange. H. F. Wood, Hermanus, C.P. Corms.

WATSONIA (HYBRIDS)

300178. (711)
Hybrid No. 5. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

300179. (712)
Hybrid Bloem Erf Orchid. Bloem Erf Nursery, Stellenbosch,
C.P. Corms.

300180. (716)
Hybrid No. 3. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

300181. (718)

Hybrid No. 2. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

WATSONIA IRIDIFOLIA VAR. OBRIENI N. E. Brown

300185. (719)

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

WATSONIA MARGINATA (Thunb.) Ker.

300186. (713)

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

WATSONIA PRIORI L. Bolus

300187. (722)

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Seeds.

WATSONIA PYRAMIDATA (Andrews) Klatt.

300188. (717) Buglelily

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

WATSONIA STANDFORDII L. Bolus

300189. (720)

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

WATSONIA SP.

300190. (303)

Bulbous herb; flower stalks 24" long, flowers mauve. Open grassland, Mt. Anderson; 10 mi. east of Lydenburg, Tvl. Corms.

300191. (710)

Bulbous herb; flower stalks 18"; flowers blue, Table Mountain sandstone, 25 mi. west of Hermanus, C.P. Corms.

300192. (714) 'Shell pink'

Cultivated ornamental. Bloem Erf Nursery, Stellenbosch, C.P. Corms.

NUMERICAL LIST OF INTRODUCTIONS

<u>Col. No.</u>	<u>PI No.</u>	<u>Species</u>
2	299655	<i>Digitaria milanjiana</i>
3	299739	<i>D. pentzii</i>
4	299808	<i>D. smutsii</i>
5	299656	<i>D. milanjiana</i>
6	299809	<i>D. smutsii</i>
7	299787	<i>D. setivalva</i>
8	299657	<i>D. milanjiana</i>
9	299788	<i>D. setivalva</i>
10	299703	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
11	299658	<i>D. milanjiana</i>
12	299659	<i>D. milanjiana</i>
13	299789	<i>D. setivalva</i>
14	299790	<i>D. setivalva</i>
15	299660	<i>D. milanjiana</i>
16	299661	<i>D. milanjiana</i>
17	299662	<i>D. milanjiana</i>
18	299781	<i>D. polevansii</i>
19	299844	<i>D. valida</i>
20	299810	<i>D. smutsii</i>
21	302767	<i>D. smutsii</i>
22	299791	<i>D. setivalva</i>
23	299792	<i>D. setivalva</i>
24	299793	<i>D. setivalva</i>
25	299704	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
26	299705	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
27	299663	<i>D. milanjiana</i>
28	299664	<i>D. milanjiana</i>
29	299665	<i>D. milanjiana</i>
30	299845	<i>D. valida</i>
31	299666	<i>D. milanjiana</i>
32	299846	<i>D. valida</i>
33	299667	<i>D. milanjiana</i>
34	299794	<i>D. setivalva</i>
35	299795	<i>D. setivalva</i>

36	299811	<i>D. smutsii</i>
37	299668	<i>D. milanjiana</i>
38	299706	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
39	299812	<i>D. smutsii</i>
40	299796	<i>D. setivalva</i>
41	299669	<i>D. milanjiana</i>
42	299707	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
43	299708	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
44	299740	<i>D. pentzii</i>
45	299670	<i>D. milanjiana</i>
46	299709	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
47	299710	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
48	299671	<i>D. milanjiana</i>
49	299847	<i>D. valida</i>
50	299711	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
51	299712	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
52	299713	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
53	299714	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
54	299715	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
55	299672	<i>D. milanjiana</i>
56	299716	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
57	299797	<i>D. setivalva</i>
58	299673	<i>D. milanjiana</i>
59	299848	<i>D. valida</i>
60	301141	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
61	299674	<i>D. milanjiana</i>
62	299894	<i>D. valida</i>
63	299891	<i>Digitaria</i> sp.
64	299850	<i>D. valida</i>
65	299675	<i>D. milanjiana</i>
66	299676	<i>D. milanjiana</i>
67	299677	<i>D. milanjiana</i>
68	299741	<i>D. pentzii</i>
69	299678	<i>D. milanjiana</i>
70	299679	<i>D. milanjiana</i>
71	299717	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
72	299718	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
73	299851	<i>D. valida</i>
74	299892	<i>Digitaria</i> sp.
75	299680	<i>D. milanjiana</i>

76	299798	<i>D. setivalva</i>
77	299681	<i>D. milanjiana</i>
78	299813	<i>D. smutsii</i>
79	299782	<i>D. polevansii</i>
80	299719	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
81	299682	<i>D. milanjiana</i>
82	299799	<i>D. setivalva</i>
83	299720	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
84	299742	<i>D. pentzii</i>
85	299800	<i>D. setivalva</i>
86	299721	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
87	299722	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
88	299852	<i>D. valida</i>
89	299683	<i>D. milanjiana</i>
90	299723	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
91	299724	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
92	299684	<i>D. milanjiana</i>
93	299685	<i>D. milanjiana</i>
94	299801	<i>D. setivalva</i>
95	299814	<i>D. smutsii</i>
96	299853	<i>D. valida</i>
97	301142	<i>D. setivalva</i>
98	299802	<i>D. setivalva</i>
99	299686	<i>D. milanjiana</i>
100	299725	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
101	299726	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
102		<i>D. milanjiana</i> subsp. <i>eylesiana</i>
103	299727	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
104	299728	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
105	299597	<i>D. decumbens</i>
106	299598	<i>D. decumbens</i>
107	299614	<i>D. eriantha</i>
108	299615	<i>D. eriantha</i>
109	299687	<i>D. milanjiana</i>
110	299743	<i>D. pentzii</i>
111	299815	<i>D. smutsii</i>
112	299688	<i>D. milanjiana</i>
113	299689	<i>D. milanjiana</i>
114	299816	<i>D. smutsii</i>
115	299690	<i>D. milanjiana</i>

116	299691	<i>D. milanjiana</i>
117	299729	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
118	299744	<i>D. pentzii</i>
119	299817	<i>D. smutsii</i>
120	299730	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
121	299731	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
122	301143	<i>D. valida</i>
123	299854	<i>D. valida</i>
124	299745	<i>D. pentzii</i>
125	299818	<i>D. smutsii</i>
126	299855	<i>D. valida</i>
127	299599	<i>D. decumbens</i>
128	299856	<i>D. valida</i>
129	299819	<i>D. smutsii</i>
130	299803	<i>D. setivalva</i>
131	299616	<i>D. eriantha</i>
132	299617	<i>D. eriantha</i>
133	299857	<i>D. valida</i>
134	299692	<i>D. milanjiana</i>
135	299858	<i>D. valida</i>
136	299859	<i>D. valida</i>
137	299746	<i>D. pentzii</i>
138	299860	<i>D. valida</i>
139	302766	<i>D. pentzii</i>
140	299783	<i>D. polevansii</i>
141	299642	<i>D. longiflora</i>
142	299861	<i>D. valida</i>
143	299862	<i>D. valida</i>
144	299863	<i>D. valida</i>
145	300193	<i>D. setivalva</i>
146	299893	<i>Digitaria</i> sp.
147	302768	<i>D. valida</i>
148	299618	<i>D. eriantha</i>
149	299820	<i>D. smutsii</i>
150	299619	<i>D. eriantha</i>
151	299620	<i>D. eriantha</i>
152	299621	<i>D. eriantha</i>
153	299864	<i>D. valida</i>
154	299747	<i>D. pentzii</i>
155	299622	<i>D. eriantha</i>

156	299865	<i>D. valida</i>
157	299821	<i>D. smutsii</i>
158	299866	<i>D. valida</i>
159	299867	<i>D. valida</i>
160	299822	<i>D. smutsii</i>
161	299823	<i>D. smutsii</i>
162	299693	<i>D. milanjana</i>
163	299732	<i>D. milanjana</i> subsp. <i>eylesiana</i>
164	299824	<i>D. smutsii</i>
165	299623	<i>D. eriantha</i>
166	299868	<i>D. valida</i>
167	299624	<i>D. eriantha</i>
168	299869	<i>D. valida</i>
169	299870	<i>D. valida</i>
170	299694	<i>D. milanjana</i>
171	299871	<i>D. valida</i>
172	299872	<i>D. valida</i>
173	299600	<i>D. decumbens</i>
174	299695	<i>D. milanjana</i>
175	299733	<i>D. milanjana</i> subsp. <i>eylesiana</i>
176	299696	<i>D. milanjana</i>
177	299625	<i>D. eriantha</i>
178	299626	<i>D. eriantha</i>
179	299894	<i>Digitaria</i> sp.
180	299748	<i>D. pentzii</i>
181	299734	<i>D. milanjana</i> subsp. <i>eylesiana</i>
182	299825	<i>D. smutsii</i>
183	299873	<i>D. valida</i>
184	299735	<i>D. milanjana</i> subsp. <i>eylesiana</i>
185	299826	<i>D. smutsii</i>
186	299736	<i>D. milanjana</i> subsp. <i>eylesiana</i>
187	299827	<i>D. smutsii</i>
188	299874	<i>D. valida</i>
189	299627	<i>D. eriantha</i>
190	299749	<i>D. pentzii</i>
191	299875	<i>D. valida</i>
192	299750	<i>D. pentzii</i>
193	299697	<i>D. milanjana</i>
194	299828	<i>D. smutsii</i>
195	299876	<i>D. valida</i>

196	299698	<i>D. milanjiana</i>
197	299751	<i>D. pentzii</i>
198	299877	<i>D. valida</i>
199	299737	<i>D. milanjiana</i> subsp. <i>eylesiana</i>
200	299580	<i>Cynodon dactylon</i> var. <i>densus</i>
201	299583	<i>Cynodon magennisii</i>
202	299576	<i>C. dactylon</i>
203	299836	<i>Digitaria swazilandensis</i>
204	299610	<i>D. diversinervis</i>
205	299584	<i>Cynodon</i> sp.
206	299585	<i>Cynodon</i> sp.
207	300127	<i>Stenotaphrum secundatum</i>
208	299983	<i>Gladiolus tristis</i>
209	299837	<i>Digitaria swazilandensis</i>
210	299601	<i>D. decumbens</i>
211	299628	<i>D. eriantha</i>
212	299629	<i>D. eriantha</i>
213	299752	<i>D. pentzii</i>
214	299804	<i>D. setivalva</i>
215	299785	<i>D. polyphylla</i>
216	299738	<i>D. milanjiana</i>
217	299637	<i>D. gazensis</i>
218	299805	<i>D. setivalva</i>
219	299638	<i>D. gazensis</i>
220	299878	<i>D. valida</i>
221	299806	<i>D. setivalva</i>
222	299630	<i>D. eriantha</i>
223	299595	<i>D. chevalieri</i>
224	299753	<i>D. pentzii</i>
225	299879	<i>D. valida</i>
226	299754	<i>D. pentzii</i>
227	299699	<i>D. milanjiana</i>
228	299755	<i>D. pentzii</i>
229	299631	<i>D. eriantha</i>
230	299993	<i>Hemarthria altissima</i>
231	299994	<i>Hemarthria altissima</i>
232	299995	<i>Hemarthria altissima</i>
233	300087	<i>Pennisetum setaceum</i>
234	299492	<i>Brachiaria brizantha</i>
235	299493	<i>Brachiaria brizantha</i>
236	299497	<i>Brachiaria</i> sp.
237	299494	<i>Brachiaria brizantha</i>
238	299498	<i>Brachiaria</i> sp.
239	300084	<i>Pennisetum macrourum</i>
240	300085	<i>Pennisetum macrourum</i>

241	299472	Arachis sp.
242	299473	Arachis sp.
243	299474	Arachis sp.
244	299569	Cucumis zeyheri
245	299829	Digitaria smutsii
246	299906	Eragrostis atherstonei
247	299951	Eragrostis superba
248	300003	Indigofera cryptantha
249	299880	Digitaria valida
250	299881	D. valida
251	299900	Enneapogon cenchroides
252	299830	Digitaria smutsii
253	299831	D. smutsii
254	300035	Panicum coloratum
255	300046	Panicum maximum
256		Cynodon dactylon
257	299495	Brachiaria brizantha
258	300081	Peltophrum africanum
259	300001	Hibiscus sp.
260	300100	Rhynchosia minima var. prostrata
261	300108	Sesamum triphyllum
262	300117	Sorghum verticelliflorum
263	299475	Aristida curvata
264	299901	Enneapogon cenchroides
265	299902	Enneapogon cenchroides
266	300163	Urochloa mosambicensis
267	299560	Cissus quadrangularis
268	299996	Hibiscus dongolensis
269	299999	Hibiscus platycalyx
270	300002	Hibiscus sp.
271	300167	Urochloa sp.
272	299933	Eragrostis horizontalis
273	300164	Urochloa mosambicensis
274	299988	Gossypium herbaceum var. africanum
275	299935	Eragrostis lehmanniana
276	299700	Digitaria milanjiana
277	300047	Panicum maximum
278	299756	Digitaria pentzii
279	299701	D. milanjiana
280	299757	D. pentzii

281	299496	<i>Brachiaria deflexa</i>
282	299838	<i>Digitaria swazilandensis</i>
283	299643	<i>D. longiflora</i>
284	300131	<i>Stereochlaena cameronii</i>
285		<i>Rubus</i> sp.
286	299609	<i>Digitaria diagonalis</i>
287	299702	<i>D. milanjiana</i>
288	300144	<i>Trichopeteryx dregeana</i>
289	300194	<i>Paspalum notatum</i>
290	300045	<i>Panicum infestum</i>
291	300086	<i>Pennisetum purpureum</i>
292	300048	<i>Panicum maximum</i>
293	300165	<i>Urochloa mosambicensis</i>
294	300118	<i>Sorghum verticelliflorum</i>
295	299758	<i>Digitaria pentzii</i>
296	299759	<i>D. pentzii</i>
297	299903	<i>Enneapogon cenchroides</i>
298		<i>Digitaria pentzii</i>
299	300140	<i>Themeda triandra</i>
300	299913	<i>Eragrostis curvula</i>
301	299461	<i>Agrostis lachnantha</i>
302		<i>Cynodon hirsutus</i>
303	300190	<i>Watsonia</i> sp.
304	299460	<i>Agrostis eriantha</i>
305		<i>Rubus pinnatus</i>
306		<i>Setaria chevallieri</i>
307	299899	<i>Ehrharta erecta</i>
308	299547	<i>Chloris gayana</i>
309	300143	<i>Trichilia emetica</i>
310	300094	<i>Pterocarpus angolensis</i>
311	299998	<i>Hibiscus engleri</i>
312	300027	<i>Microchloa caffra</i>
313		<i>Digitaria valida</i>
314	299596	<i>D. debilis</i>
315	300017	<i>Loudetia simplex</i>
316	299602	<i>Digitaria decumbens</i>
317	299603	<i>D. decumbens</i>
318		<i>D. milanjiana</i>
319	299504	<i>Cenchrus ciliaris</i>
320	299505	<i>Cenchrus ciliaris</i>

321	299760	<i>Digitaria pentzii</i>
322	299964	<i>Erythrina humeana</i>
323	299761	<i>Digitaria pentzii</i>
324	299604	<i>D. decumbens</i>
325	304872	<i>D. valida</i>
326	300166	<i>Urochloa mosambicensis</i>
327	299904	<i>Enneapogon cenchroides</i>
328	299568	<i>Cucumis myriocarpus</i>
329	300119	<i>Sorghum verticelliflorum</i>
330	299605	<i>Digitaria decumbens</i>
331	299882	<i>D. valida</i>
332		<i>Digitaria pentzii</i>
333	300036	<i>Panicum coloratum</i>
334	299490	<i>Bothriochloa insculpta</i>
335	299989	<i>Gossypium herbaceum</i> var. <i>africanum</i>
336	299883	<i>Digitaria valida</i>
337	299548	<i>Chloris gayana</i>
338	300028	<i>Microchloa caffra</i>
339	299465	<i>Anthoschmidtia bulbosa</i>
340	299762	<i>Digitaria pentzii</i>
341	299934	<i>Eragrostis horizontalis</i>
342	300107	<i>Sesamum alatum</i>
343	299586	<i>Dactyloctenium aegyptium</i>
344	299952	<i>Eragrostis superba</i>
345	299566	<i>Crinum macowanii</i>
346	299763	<i>Digitaria pentzii</i>
347	300049	<i>Panicum maximum</i>
348	299764	<i>Digitaria pentzii</i>
349	300006	<i>Indigofera</i> sp.
350	300000	<i>Hibiscus vitifolius</i> subsp. <i>vulgaris</i>
351	299765	<i>Digitaria pentzii</i>
352	300124	<i>Sporobolus ioclados</i> var. <i>usitatus</i>
353	300125	<i>Sporobolus nitens</i>
354	299591	<i>Dactyloctenium geminatum</i>
355	299766	<i>Digitaria pentzii</i>
356	299767	<i>Digitaria pentzii</i>
357	299931	<i>Eragrostis gummiflua</i>
358	299557	<i>Chloris myriostachya</i>
359	299905	<i>Enteropogon simplex</i>
360	300135	<i>Tephrosia purpurea</i>

361	299467	Arachis hypogaea
362	299567	Crotalaria juncea
363	300050	Panicum maximum
364	300060	Panicum sp.
365	299561	Cissus sp.
366	299562	Cissus sp.
367	299573	Cucurbita maxima
368	299575	Cucurbita pepo
369	299884	Digitaria valida
370	299953	Eragrostis superba
371	300141	Themeda triandra
372	300121	Sorghum sp.
373	300007	Indigofera sp.
374	300169	Vicia faba
375	300089	Phaseolus vulgaris
376	300090	Phaseolus vulgaris
377	300091	Phaseolus vulgaris
378	299499	Brachiaria sp.
379	299839	Digitaria swazilandensis
380	300168	Urochloa sp.
381	300113	Setaria sp.
382	299914	Eragrostis sp.
383	300061	Paspalum dilatatum
384	300062	" "
385	300063	" "
386	300064	" "
387	300065	" "
388	300066	" "
389	300067	" "
390	300068	" "
391	300069	" "
392	300070	" "
393	300071	" "
394	300072	" "
395	300073	" "
396	300074	" "
397	300075	" "
398	300015	Lotus major
399	300014	Lotus corniculatus
400	299549	Chloris gayana

401	299832	<i>Digitaria smutsii</i>
402	300021	<i>Lupinus angustifolius</i>
403	299986	<i>Glycine javanica</i>
404	300095	<i>Pueraria lobata</i>
405	300025	<i>Medicago polymorpha</i> var. <i>vulgaris</i>
406	300009	<i>Lespedeza cuneata</i>
407	299842	<i>Digitaria tricholaenoides</i>
408	299786	<i>Digitaria scalarum</i>
409	304751	<i>Pennisetum</i> sp.
410	304750	<i>Pennisetum unisetum</i>
411	300080	<i>Paspalum vaginatum</i>
412	300176	<i>Vigna wilmsii</i>
413	299968	<i>Fingerhuthia sesleriaeformis</i>
414	302758	<i>Senecio achilleaefolius</i>
415	299491	<i>Bothriochloa insculpta</i>
416	299570	<i>Cucumis zeyheri</i>
417	299910	<i>Eragrostis chloromelas</i>
418	299652	<i>Digitaria macroglossa</i> var. <i>prostrata</i>
419	299577	<i>Cynodon dactylon</i>
420	299915	<i>Eragrostis curvula</i>
421	299912	<i>Eragrostis cilianensis</i>
422	299954	<i>Eragrostis superba</i>
423	299653	<i>Digitaria macroglossa</i> var. <i>prostrata</i>
424	299477	<i>Aristida junciformis</i>
425	299645	<i>Digitaria macroglossa</i>
426		<i>Chloris gayana</i>
427	299550	<i>Chloris gayana</i>
428	299611	<i>Digitaria diversinervis</i>
429	299916	<i>Eragrostis curvula</i>
430	299965	<i>Eulalia villosa</i>
431	299908	<i>Eragrostis capensis</i>
432	300010	<i>Leucaena leucocephala</i>
433	300120	<i>Sorghum verticelliflorum</i>
434	300128	<i>Stenotaphrum secundatum</i>
435	299612	<i>Digitaria diversinervis</i>
436	299779	<i>D. pentzii</i> var. <i>stolonifera</i>
437	299644	<i>D. longiflora</i>
438	299587	<i>Dactyloctenium australe</i>
439		<i>Urochloa mosambicensis</i>
440	299768	<i>Digitaria pentzii</i>

441	299646	<i>Digitaria macroglossa</i>
442	299896	<i>Dolichos taubertii</i>
443	299590	<i>Desmodium cafferum</i>
444	299840	<i>Digitaria swazilandensis</i>
445	299551	<i>Chloris gayana</i>
446	300115	<i>Sorghum bicolor</i>
447	299991	<i>Helianthus annuus</i>
448	300037	<i>Panicum coloratum</i>
449	299506	<i>Cenchrus ciliaris</i>
450	300038	<i>Panicum coloratum</i>
451	300111	<i>Setaria woodii</i>
452	300139	<i>Tetrapogon mosambicensis</i>
453	299997	<i>Hibiscus dongolensis</i>
454	299963	<i>Eragrostis</i> sp.
455	300013	<i>Lintonia nutans</i>
456	299885	<i>Digitaria valida</i>
457	299502	<i>Cassia occidentalis</i>
458	299606	<i>Digitaria decumbens</i>
459	299607	<i>D. decumbens</i>
460	299955	<i>Eragrostis superba</i>
461	300101	<i>Rhynchosia sublobata</i>
462	299833	<i>Digitaria smutsii</i>
463	300004	<i>Indigofera schimperii</i>
464	299932	<i>Eragrostis heteromera</i>
465	299503	<i>Cassia occidentalis</i>
466	299563	<i>Citrullus vulgaris</i>
467	299956	<i>Eragrostis superba</i>
468	299769	<i>Digitaria pentzii</i>
469	299770	<i>D. pentzii</i>
470	299771	<i>D. pentzii</i>
471	299468	<i>Arachis hypogaea</i>
472	299608	<i>Digitaria decumbens</i>
473	299507	<i>Cenchrus ciliaris</i>
474		<i>Digitaria valida</i>
475	299886	<i>D. valida</i>
476	300116	<i>Sorghum versicolor</i>
477	299807	<i>Digitaria setivalva</i>
478	299469	<i>Arachis hypogaea</i>
479	299780	<i>Digitaria pentzii</i> var. stolonifera
480	299887	<i>D. valida</i>

481	299957	<i>Eragrostis superba</i>
482	299958	" "
483	299559	<i>Cienfuegosia hilderbrandtii</i>
484	299647	<i>Digitaria macroglossa</i>
485	299841	<i>D. ternata</i>
486	299613	<i>Digitaria diversinervis</i>
487	300126	<i>Sporobolus virginicus</i>
488	299648	<i>Digitaria macroglossa</i>
489		<i>Carissa grandiflora</i>
490	300096	<i>Puncia granatum</i>
491	300136	<i>Tetrachne dregei</i>
492	299500	<i>Bromus willdenowii</i>
493		<i>Panicum laevifolium</i>
494	300076	<i>Paspalum dilatatum</i>
495	300082	<i>Pennisetum clandestinum</i>
496	300149	<i>Trifolium pratense</i>
497	300155	<i>Trifolium repens</i>
498	299917	<i>Eragrostis curvula</i>
499	300171	<i>Vigna sinensis</i>
500	300172	<i>Vigna sinensis</i>
501	300173	<i>Vigna sinensis</i>
502	300174	" "
503	300175	" "
504	299918	<i>Eragrostis curvula</i>
505	299911	<i>Eragrostis chloromelas</i>
506	299950	<i>Eragrostis racemosa</i>
507		<i>Brachiaria serrata</i> var. <i>gossypina</i>
508	299949	<i>Eragrostis patentissima</i>
509	300145	<i>Trifolium africanum</i>
510	300008	<i>Ipomoea pellita</i>
511	299564	<i>Cortaderia selloana</i>
512	299969	<i>Fingerhuthia sesleriaeformis</i>
513	299992	<i>Helianthus annuus</i>
514	299987	<i>Glycine javanica</i>
515	300016	<i>Lotus major</i>
516	300133	<i>Stizolobium deeringianum</i>
517	299834	<i>Digitaria smutsii</i>
518	300150	<i>Trifolium pratense</i>
519	300151	" "
520	300152	" "

521	300153	<i>Trifolium pratense</i>
522	300156	<i>Trifolium repens</i>
523	299843	<i>Digitaria tricholaenoides</i>
524	300058	<i>Panicum stapfianum</i>
525	299919	<i>Eragrostis curvula</i>
526	299481	<i>Asparagus laricinus</i>
527	300078	<i>Paspalum notatum</i>
528	300112	<i>Setaria woodii</i>
529	299897	<i>Echinochloa holubii</i>
530	300146	<i>Trifolium africanum</i>
531	299920	<i>Eragrostis curvula</i>
532	299552	<i>Chloris gayana</i>
533	300088	<i>Pennisetum typhoides</i>
534	299921	<i>Eragrostis curvula</i>
535	299944	<i>Eragrostis obtusa</i>
536	300109	<i>Setaria flabellata</i>
537	299936	<i>Eragrostis lehmanniana</i>
538	299470	<i>Arachis hypogaea</i>
539	299471	<i>Arachis hypogaea</i>
540	299959	<i>Eragrostis superba</i>
541	299463	<i>Antheophora pubescens</i>
542	299462	<i>Andropogon appendiculatus</i>
543	300157	<i>Trifolium repens</i>
544	300154	<i>Trifolium pratense</i>
545	299772	<i>Digitaria pentzii</i>
546	299937	<i>Eragrostis lehmanniana</i>
547	299632	<i>Digitaria eriantha</i>
548	299938	<i>Eragrostis lehmanniana</i>
549	299464	<i>Antheophora pubescens</i>
550	299960	<i>Eragrostis superba</i>
551	299907	<i>Eragrostis bicolor</i>
552	299558	<i>Chlorophytum elatum</i>
553	299966	<i>Eustachys paspaloides</i>
554	299581	<i>Cynodon hirsutus</i>
555	299466	<i>Anthoschmidtia bulbosa</i>
556	299479	<i>Aristida vestita</i>
557	299784	<i>Digitaria polevansii</i>
558	300097	<i>Rhynchelytrum repens</i>
559	299945	<i>Eragrostis obtusa</i>
560	299961	<i>Eragrostis superba</i>

561	299888	<i>Digitaria valida</i>
562	300093	<i>Psoralea obtusifolia</i>
563	299571	<i>Cucumis zeyheri</i>
564	299508	<i>Cenchrus ciliaris</i>
565	299939	<i>Eragrostis lehmanniana</i>
566	299962	<i>Eragrostis truncata</i>
567	299578	<i>Cynodon dactylon</i>
568	299486	<i>Asparagus sp.</i>
569	299928	<i>Eragrostis curvula</i> var. conferta
570	299476	<i>Aristida diffusa</i>
571	299592	<i>Digitaria argyrogapta</i>
572	299922	<i>Eragrostis curvula</i>
573	299946	<i>Eragrostis obtusa</i>
574	299940	<i>Eragrostis lehmanniana</i>
575	300122	<i>Sporobolus fimbriatus</i>
576	300092	<i>Portulacaria afra</i>
577		<i>Nestlera conferta</i>
578	299478	<i>Aristida obtusa</i>
579	300137	<i>Tetrachne dregei</i>
580	299835	<i>Digitaria smutsii</i>
581	299593	<i>D. argyrogapta</i>
582		<i>Chloris gayana</i>
583	299553	<i>Chloris gayana</i>
584	299509	<i>Cenchrus ciliaris</i>
585	299929	<i>Eragrostis curvula</i> var. conferta
586	299898	<i>Ehrharta calycina</i>
587	300158	<i>Trifolium repens</i>
588	300147	<i>Trifolium burchellianum</i>
589	300159	<i>Trifolium repens</i>
590	300160	<i>Trifolium repens</i>
591	300161	<i>Trifolium repens</i>
592	300162	" "
593	300138	<i>Tetragonia arbuscula</i>
594	299967	<i>Fingerhuthia africana</i>
595	300039	<i>Panicum coloratum</i>
596	299488	<i>Atriplex semibaccata</i>
597	299489	<i>Atriplex semibaccata</i>
598	300123	<i>Sporobolus fimbriatus</i>
599	300031	<i>Miscanthidium sp.</i>
600	299970	<i>Fingerhuthia sesleriaeformis</i>

601	299510	<i>Cenchrus ciliaris</i>
602	299941	<i>Eragrostis lehmanniana</i>
603	299947	<i>Eragrostis obtusa</i>
604	299942	<i>Eragrostis lehmanniana</i>
605	299572	<i>Cucumis zeyheri</i>
606	299633	<i>Digitaria eriantha</i>
607	299930	<i>Eragrostis curvula</i> var. <i>conferta</i>
608	300110	<i>Setaria neglecta</i>
609	299594	<i>Digitaria argyrograpta</i>
610	300040	<i>Panicum coloratum</i>
611	299482	<i>Asparagus multiflorus</i>
612	300142	<i>Thesium triflorum</i>
613	299588	<i>Dactyloctenium australe</i>
614	299554	<i>Chloris gayana</i>
615	299574	<i>Cucurbita moschata</i>
616	300051	<i>Panicum maximum</i>
617	300079	<i>Paspalum urvillei</i>
618	300018	<i>Lonicera</i> sp.
619	299773	<i>Digitaria pentzii</i>
620	299649	<i>D. macroglossa</i>
621	300029	<i>Miscanthidium capense</i>
622	300104	<i>Rubus rigidus</i>
623	300005	<i>Indigofera stricta</i>
624	299774	<i>Digitaria pentzii</i>
625	300098	<i>Rhynchosia hirsuta</i>
626	300129	<i>Stenotaphrum secundatum</i>
627	299775	<i>Digitaria pentzii</i>
628	300102	<i>Rhynchosia totta</i>
629	299639	<i>Digitaria geniculata</i>
630	299483	<i>Asparagus racemosus</i>
631	300052	<i>Panicum maximum</i>
632	300053	" "
633	300054	" "
634	300055	" "
635	300041	<i>Panicum coloratum</i>
636	300042	<i>Panicum coloratum</i>
637	300056	<i>Panicum maximum</i>
638	300034	<i>Panicum antidotale</i>
639	300043	<i>Panicum coloratum</i>
640	300057	<i>Panicum maximum</i>

64	299775	Digitaria lobocarpiana
65	299776	Digitaria pentzii
66	299777	D. valid
67	299511	Cenchrus ciliaris
68	299512	Cenchrus ciliaris
69	299776	Digitaria pentzii
70	299513	Cenchrus ciliaris
71	300020	Melica racemosa
72	300019	Lupinus albus
73	300024	Lupinus sp.
651	300022	Lupinus angustifolius
652	300023	Pennisetum clandestinum
653	299777	Digitaria pentzii
654	299778	" "
655	300103	Rubus pinnatus
656	300099	Rhynchosia minima
657	300134	Stylosanthes sunaica
658	300148	Trifolium burchellianum
659	300323	Lupinus angustifolius
660	300020	Lupinus albus
661	299695	Dolichos gibbosus
662	300030	Miscanthidium capense
663	299582	Cynodon incompletus
664	299457	Agropyron distichum
665	299458	" "
666	299427	Asparagus sp.
667	299480	Asparagus burchellii
668	300130	Stenotaphrum secundatum
669	299923	Eragrostis curvula
670	299634	Digitaria eriantha
671	299748	Eragrostis obtusa
672	299752	Eragrostis curvula
673	300072	Stipagrostis zeyheri subsp. barbata
674	300011	Leucaena leucocephala
675	299455	Acacia cyclops
676	300103	Schismus inermis
677	299923	Eragrostis curvula
678	299484	Asparagus sprengeri
679	299681	Digitaria geniculata
680	300077	Paspalum dilatatum

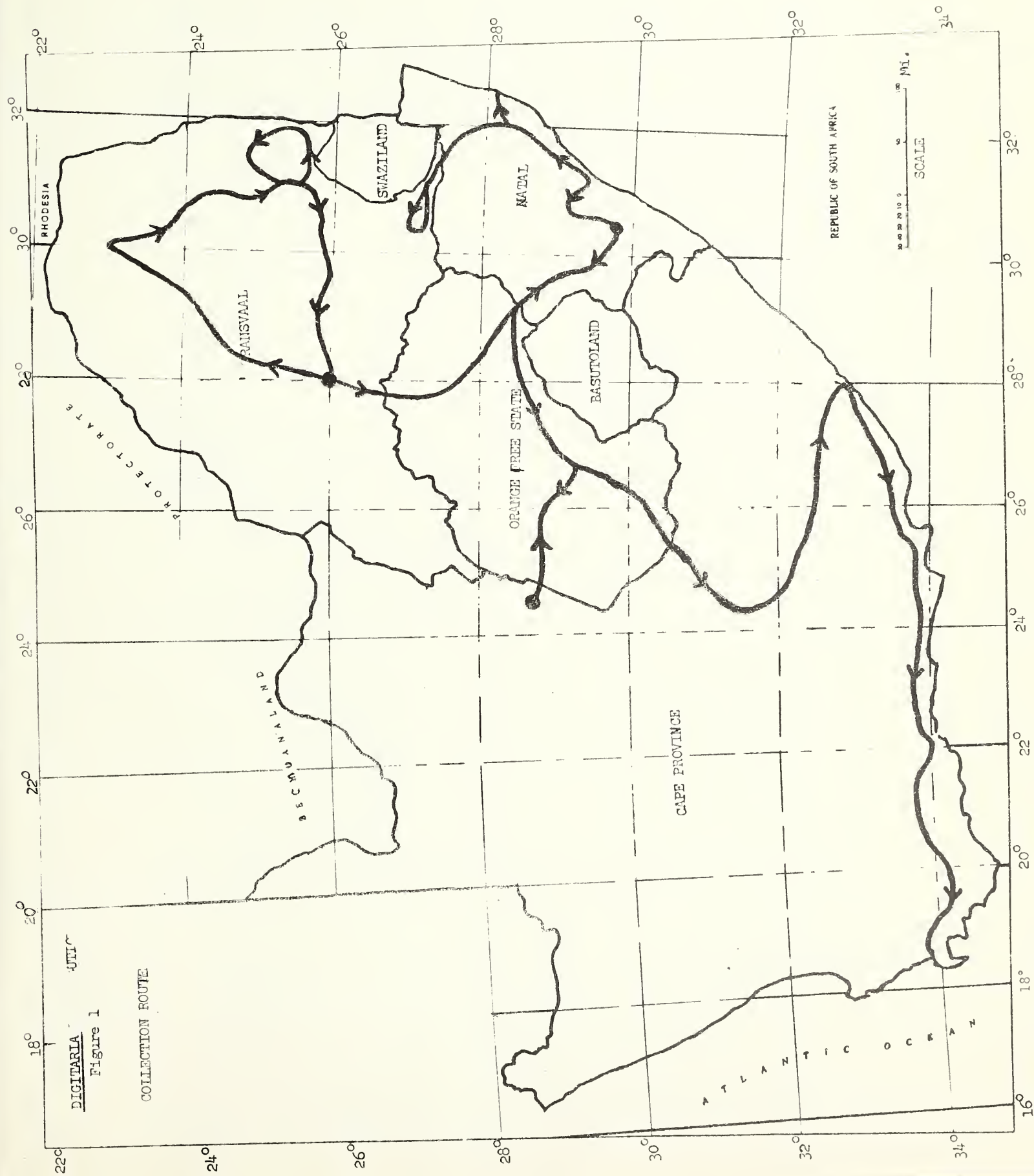
681	299909	<i>Eragrostis capensis</i>
682	299650	<i>Digitaria macroglossa</i>
683	299654	<i>D. macroglossa</i> var. <i>prostrata</i>
684	299651	<i>D. macroglossa</i>
685	299501	<i>Cassia didymobotrya</i>
686	299555	<i>Chloris gayana</i>
687	300183	<i>Watsonia angusta</i>
688	300114	<i>Setaria</i> sp.
689	299926	<i>Eragrostis curvula</i>
690	299641	<i>Digitaria geniculata</i>
691	299635	<i>Digitaria eriantha</i>
692	299456	<i>Acacia cyclops</i>
693	299459	<i>Agropyron distichum</i>
694	299565	<i>Cotyledon orbiculata</i>
695	300033	<i>Osteospermum moniliferum</i>
696	300032	<i>Myrica cordifolia</i>
697	299514	<i>Cenchrus ciliaris</i>
698	299556	<i>Chloris gayana</i>
699	299636	<i>Digitaria eriantha</i>
700	299978	<i>Gladiolus gracilis</i>
701	299980	<i>Gladiolus mortonius</i>
702	299973	<i>Gladiolus blandus</i>
703	299984	<i>Gladiolus tristis</i>
704	299971	<i>Gladiolus alatus</i>
705	299979	<i>Gladiolus grandis</i>
706	300170	<i>Vicia</i> sp.
707	299981	<i>Gladiolus psittacinus</i>
708	300184	<i>Watsonia humilis</i>
709	300177	<i>Virgilia oroboides</i>
710	300191	<i>Watsonia</i> sp.
711	300178	<i>Watsonia</i> (hybrid)
712	300179	<i>Watsonia</i> (hybrid)
713	300186	<i>Watsonia marginata</i>
714	300192	<i>Watsonia</i> sp.
715	300182	<i>Watsonia aletroides</i>
716	300180	<i>Watsonia</i> (hybrid)
717	300188	<i>Watsonia pyramidta</i>
718	300181	<i>Watsonia</i> (hybrid)
719	300185	<i>Watsonia iridifolia</i> var. <i>obrieni</i>
720	300189	<i>Watsonia standfordiae</i>

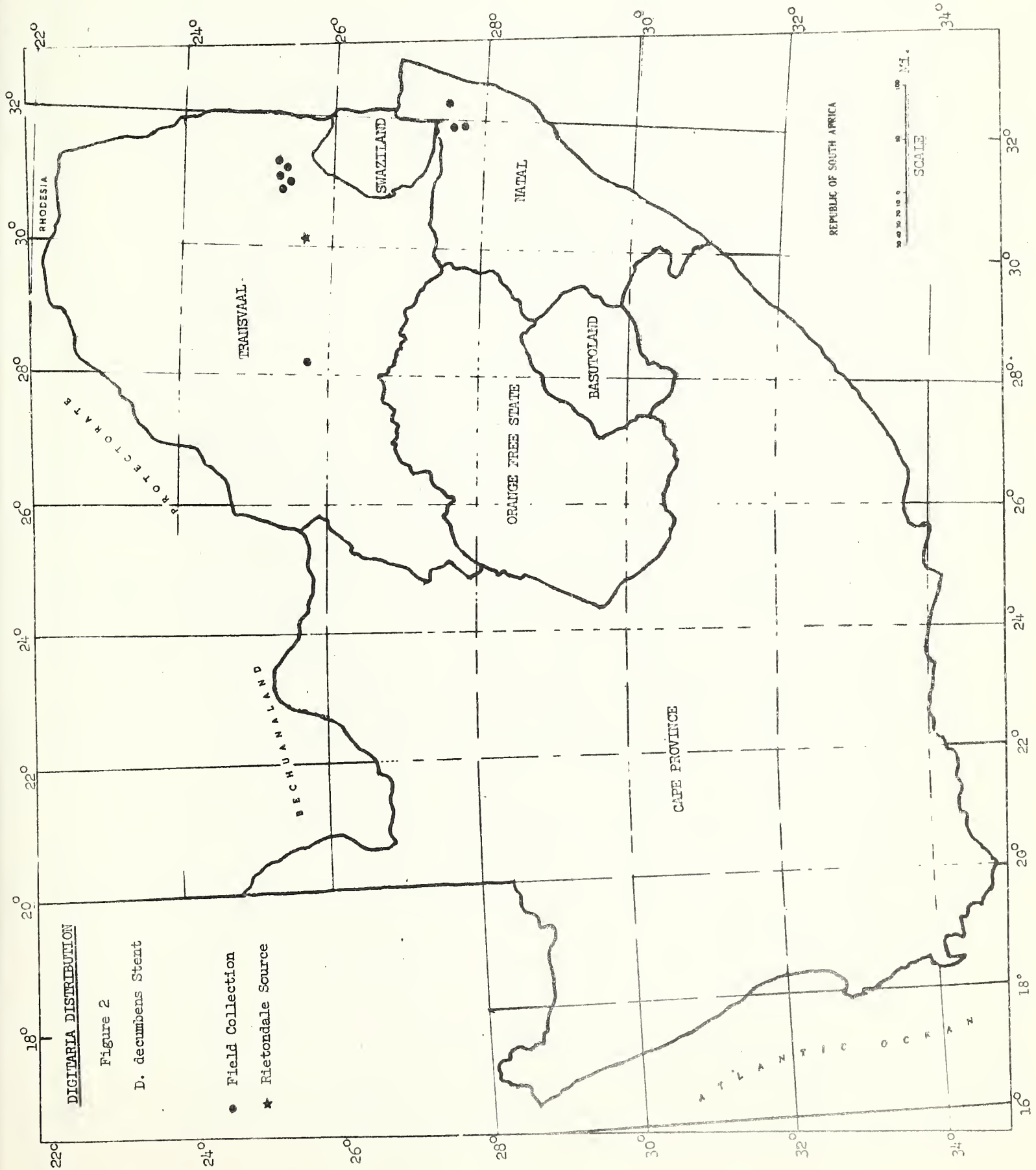
721	299985	Gladiolus tristis
722	300187	Watsonia priori
723	299990	Haemanthus coccineus
724	299974	Gladiolus blandus
725	300012	Leucospermum nutans
726	299927	Eragrostis curvula
727	299972	Gladiolus alatus
728	299975	Gladiolus blandus
729	299976	Gladiolus brevifolius
730	299977	Gladiolus carmineus
731	299982	Gladiolus psittacinus
732	299515	Cenchrus ciliaris
733	299516	" "
734	299517	" "
735	299518	" "
736	299519	Cenchrus ciliaris
737	299520	" "
738	299521	" "
739	299522	" "
740	299523	" "
741	299524	Cenchrus ciliaris
742	299525	" "
743	299526	" "
744	299527	" "
745	299528	" "
746	299529	Cenchrus ciliaris
747	299530	" "
748	299531	" "
749	299532	" "
750		Eragrostis truncata
751	299579	Cynodon dactylon
752	299589	Dierma pulcherrima
753	300106	Schotia brachypetala
754	299533	Cenchrus ciliaris
755	299534	" "
756	299535	Cenchrus ciliaris
757	299536	" "
758	299537	" "
759	299538	" "
760	299539	" "

761	299540	Cenchrus ciliaris
762	299541	" "
763	299542	" "
764	299543	" "
765	299544	" "
766	299545	Cenchrus ciliaris
767	300059	Panicum stapfianum
768	300045	Panicum deustum
769	299546	Cenchrus ciliaris

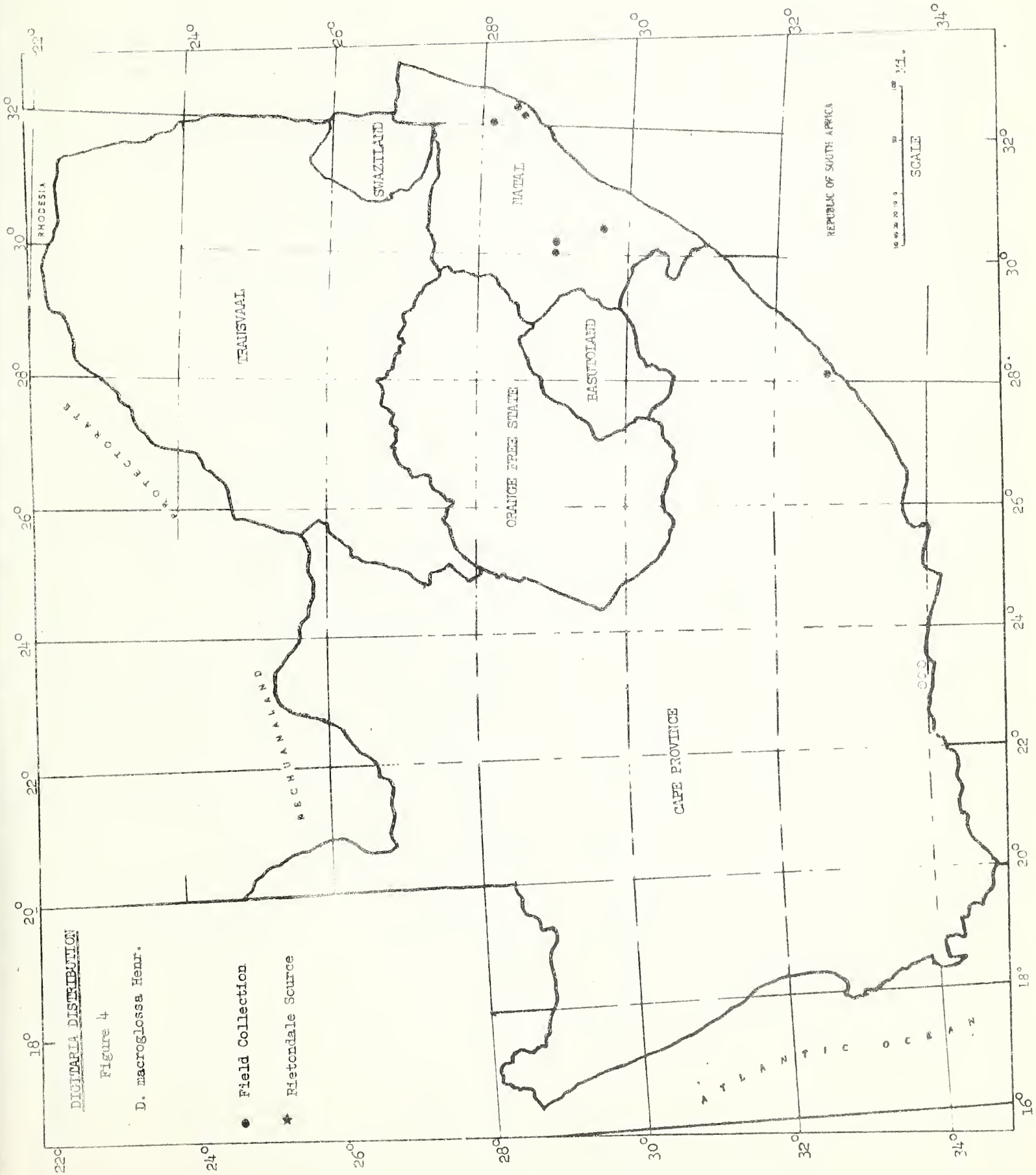
Table 1. Species included in *Digitaria* collection made in South Africa - 1964

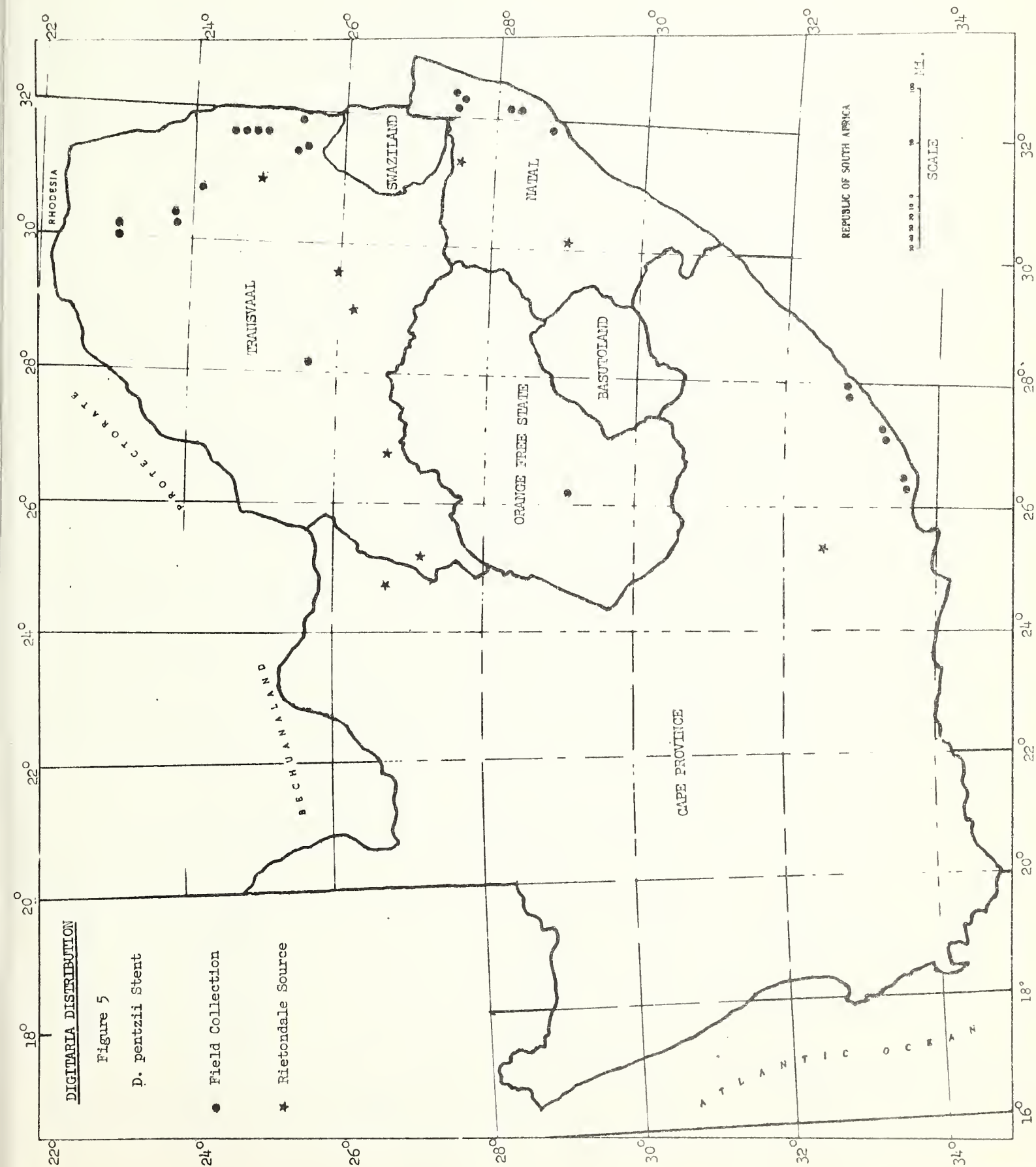
	<u>Collected in:</u>		<u>Collected as:</u>		
	Wild	Cultivation	Seeds	Vegetative	TOTAL
<i>D. argyrograpta</i> (Nees) Stapf	3		3		3
<i>D. chevalieri</i> Stapf		1		1	1
<i>D. debilis</i> (Desf.) Willd.	1			1	1
<i>D. decumbens</i> Stent	6	6	1	11	12
<i>D. diagonalis</i> (Nees) Stapf	1		1		1
<i>D. diversinervis</i> (Nees) Stapf	3	1		4	4
<i>D. eriantha</i> Steud.	5	18	6	17	23
<i>D. gazensis</i> Rendle		2	1	1	2
<i>D. geniculata</i> Stent	3		3		3
<i>D. longiflora</i> (Retz.) Pers.	2	1		3	3
<i>D. macroglossa</i> Henr.	6		5	1	6
<i>D. macroglossa</i> var. <i>prostrata</i> (Stent) Henr.	3		2	1	3
<i>D. milanjiana</i> (Rendle) Stapf	3	46		49	49
<i>D. milanjiana</i> subsp. <i>eylesiana</i> Henr.		38		38	38
<i>D. pentzii</i> Stent	24	19	6	37	43
<i>D. pentzii</i> var. <i>stolonifera</i> (Stapf) Henr.	2		1	1	2
<i>D. polevansii</i> Stent	1	3	1	3	4
<i>D. polyphylla</i> Henr.		1	1		1
<i>D. scalarum</i> (Schweinf.) Chiov.	1			1	1
<i>D. setivalva</i> Stent	1	22	1	22	23
<i>D. smutsii</i> Stent	2	27	8	21	29
<i>D. swazilandensis</i> Stent	2	3		5	5
<i>D. ternata</i> (Hochst. ex A. Rich.) Stapf	1		1		1
<i>D. tricholaenoides</i> Stapf	2			2	2
<i>D. valida</i> Stent	12	40	4	48	52
<i>Digitaria</i> sp.		4		4	4
TOTAL	84	232	45	271	316

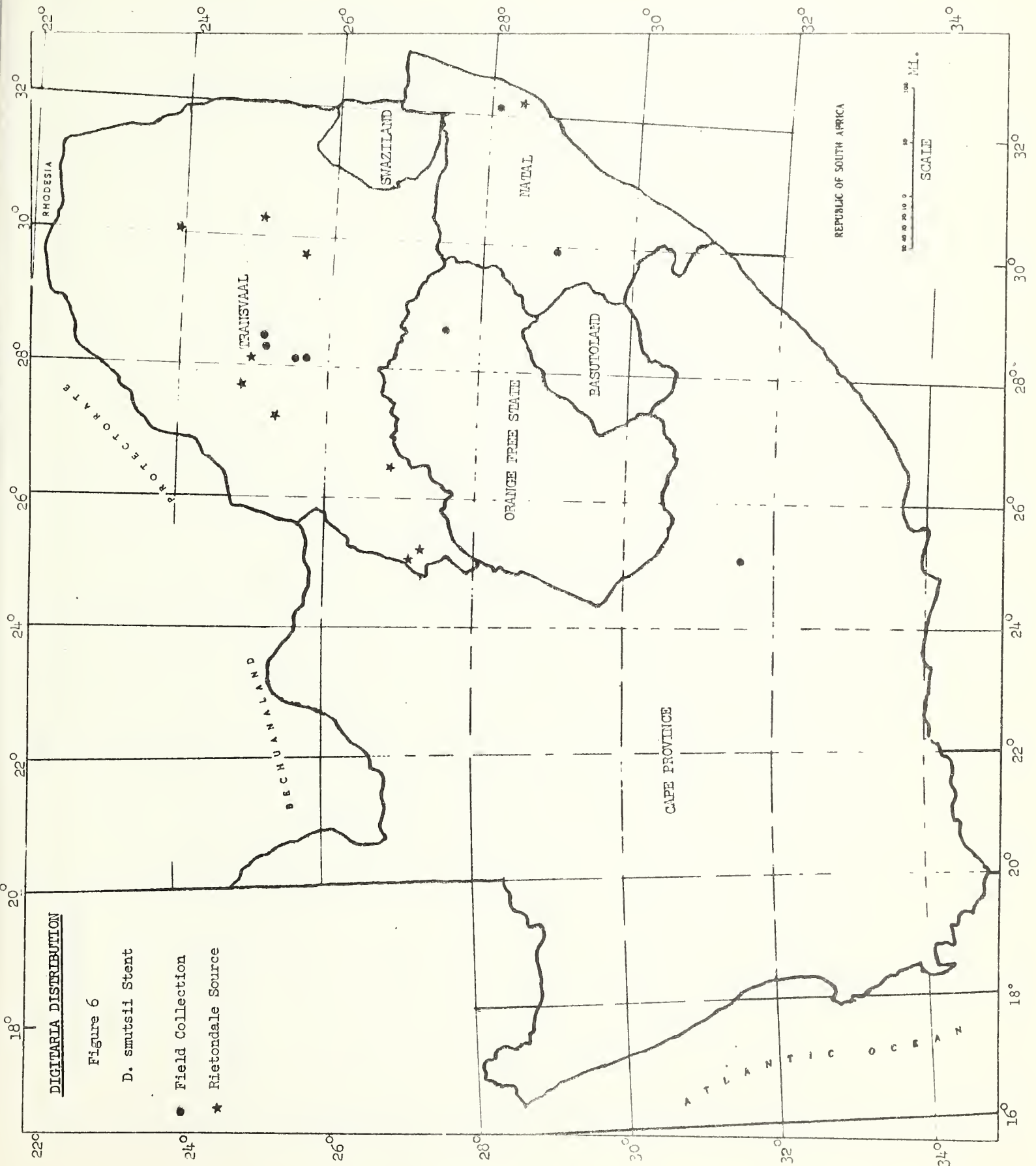


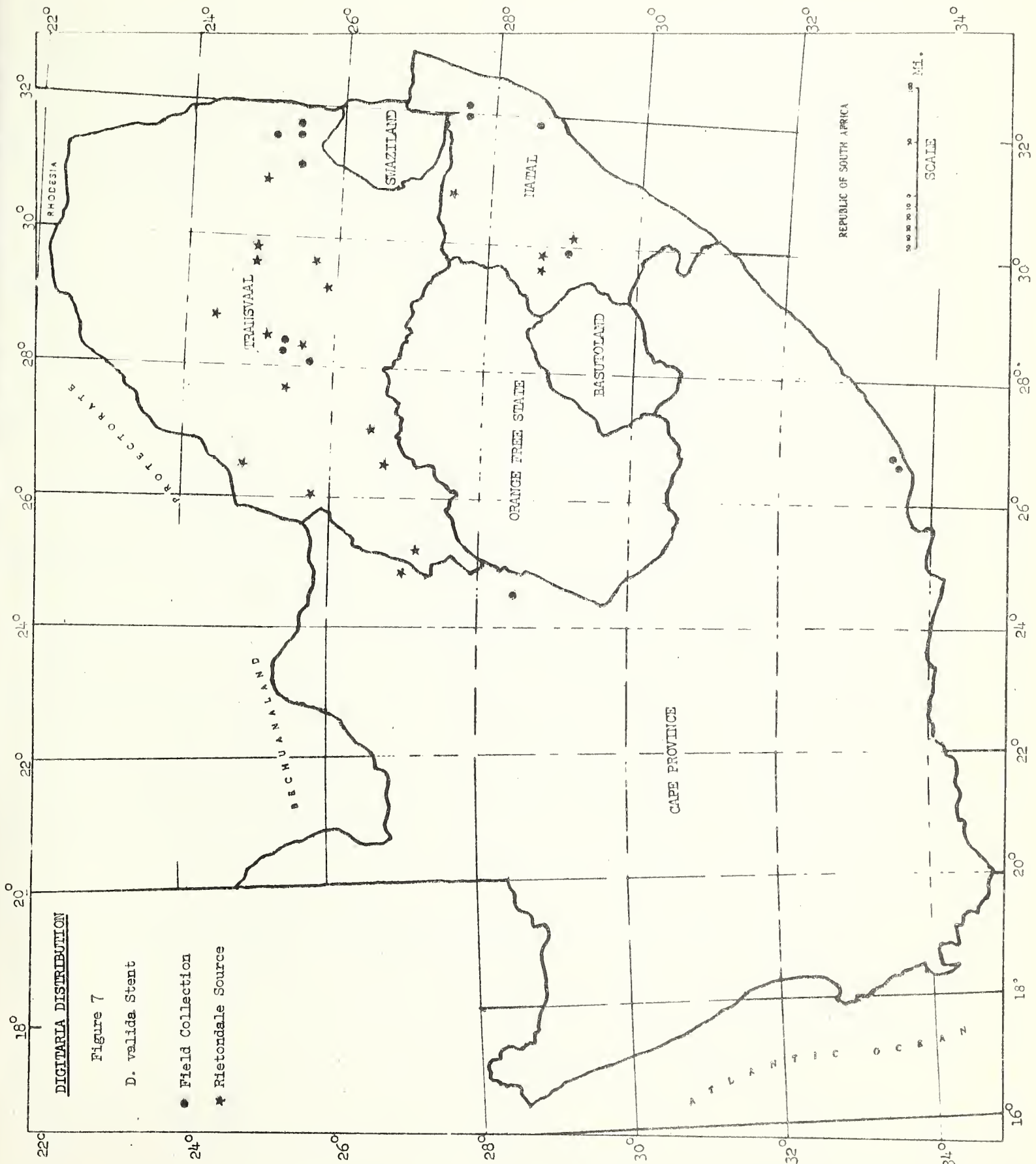


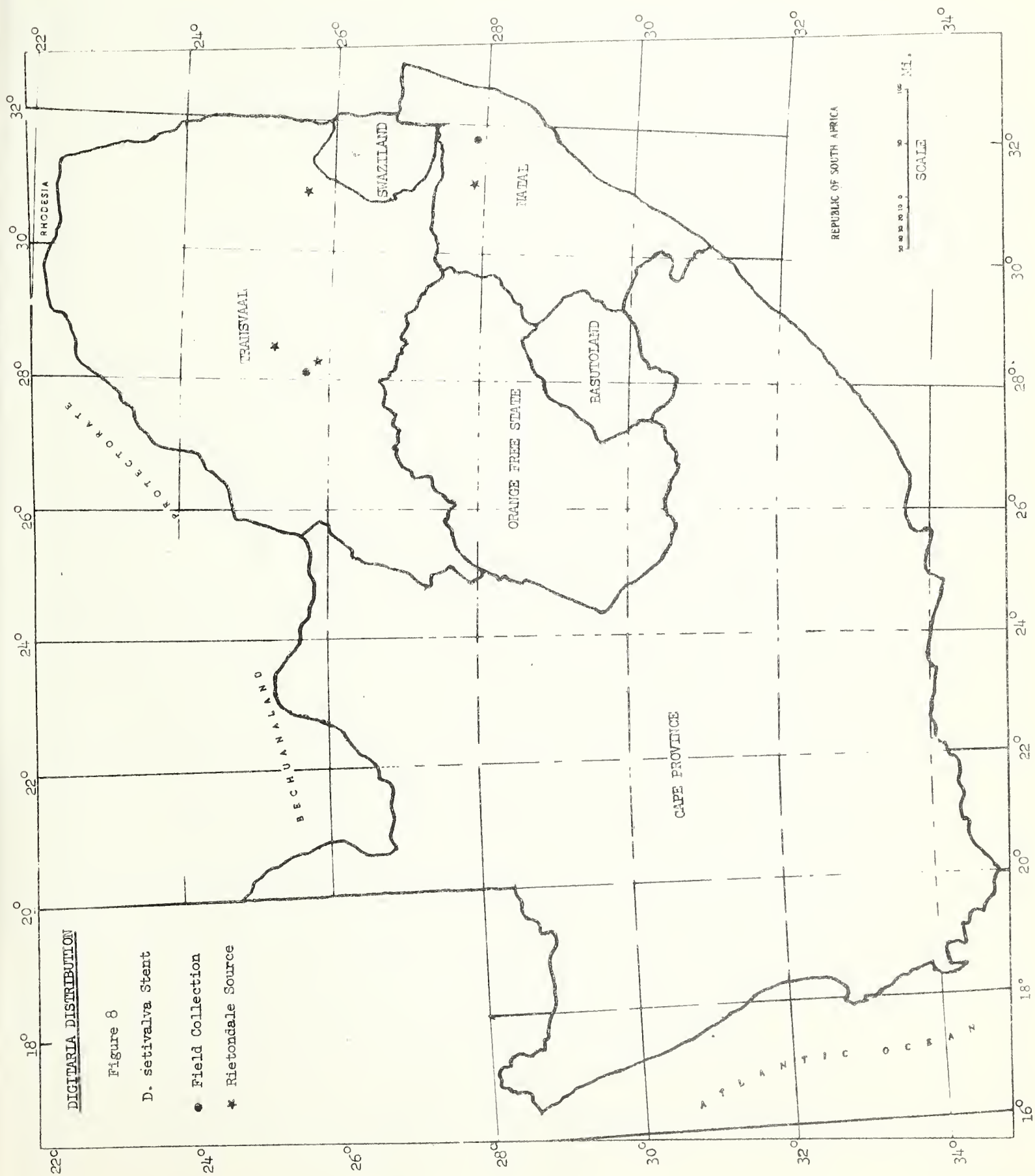


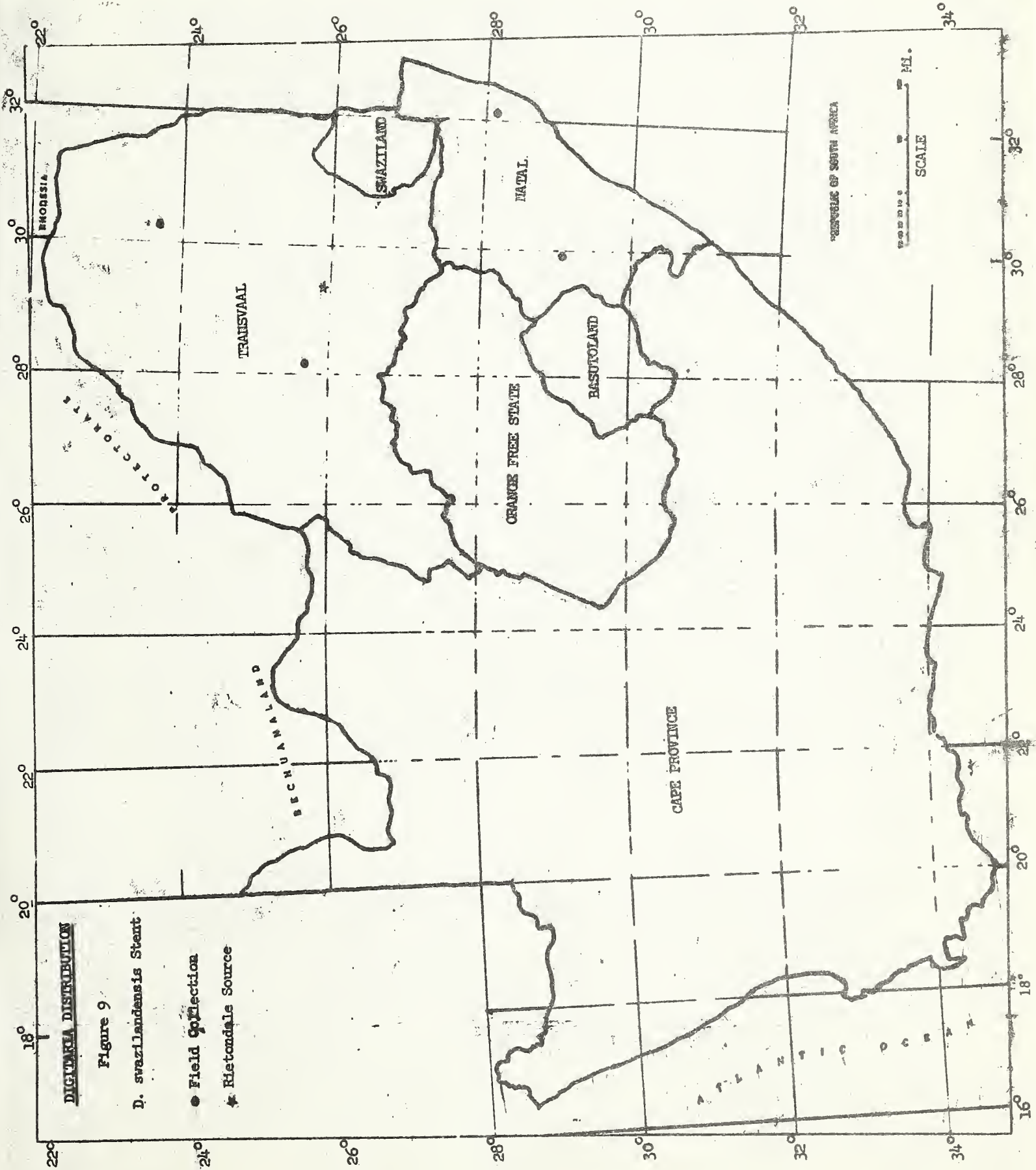












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